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THE 'MOTIONISATION' OF VERBS:
A CONTRASTIVE STUDY OF THINKING-FOR-SPEAKING IN ENGLISH
AND TUNISIAN ARABIC

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UNIVERSITY OF SUSSEX
A thesis submitted for the degree of
DOCTOR OF PHILOSOPHY
31/05/2015

Declaration

I hereby declare that this thesis has not been, and will not be submitted, in whole or in part to another University for the award of any other degree.

Signature _____

(Imed Louhichi)

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I am grateful to all.

UNIVERSITY OF SUSSEX
 IMED LOUHICHI DOCTOR OF PHILOSOPHY
THE ‘MOTIONISATION’ OF VERBS:
A CONTRASTIVE STUDY OF THINKING-FOR-SPEAKING BETWEEN
ENGLISH AND TUNISIAN ARABIC.

SUMMARY

This thesis investigates the idea that the grammatical system of a language influences aspects of thought patterns and communicative behaviour. It examines the **linguistic conceptualisation** of motion events in English and Tunisian Arabic (TA) in order to contribute to current debates in Second Language Acquisition (SLA) research and its associated field of Teaching English to Speakers of Other Languages (TESOL). The main research questions are whether in learning a typologically different language, the conceptualisation acquired through first languages (L1) interferes with the learning of the conceptualisation inherent in a second language (L2).

In order to address these questions, I adopt three analytical frameworks: a grammatical framework based on Talmy’s (1985, 2000) binary distinction between *verb-framed* and *satellite-framed* languages, a discourse framework based on Berman and Slobin’s (1994) application of Talmy’s typology to verbal behaviour; and a ‘Whorfian’ framework based on Slobin’s (1987, 1996b) *Thinking-for-Speaking*’ (TfS) hypothesis. A fundamental claim of the TfS hypothesis is that the grammar of a language and the discourse preferences of its speakers play a fundamental role in shaping **linguistic thinking**. From this follows the prediction that L1-based conceptualisation resists change when a typologically different L2 is learnt in adulthood.

A comparison of the TfS behaviours of speakers of L1-English (L1-Eng), L1-TA, and ‘advanced’ L2-English (L2-Eng) whose L1 is TA support this prediction. Based on the notion of ‘motionisation’ – a term I coin in order to describe a conceptual strategy L1 speakers of English use when TfS about events – I show that linguistic habits are not only decisive in how the same TfS content is expressed (e.g. *run from the jar* versus *run out of the jar*), but more importantly, it is decisive in situations where speakers are ‘forced’ to pick out different aspects of the same reality for TfS purposes. The findings reported here have implications for L2 English learners, in general, and, in particular, for learners of English whose L1 may be characterised as a verb-framed language.

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Typographic Conventions and Abbreviations

Motion	Semantic notions, initial capital letter e.g. Path, Manner, Cause, Figure, Ground
MOTION	Cognitive domains, small capitals e.g. PLACEMENT, CONTAINMENT
[ATTACK]	Semantic fields, in brackets and small caps e.g. [ATTACK] [SUDDEN APPEARANCE]
Emphasis	Emphasis in boldface: e.g. training
[M _{otion} + P _{ath} S _{atellite}]	Constructions bracketed with first letter of each element-type capitalised and the rest subscripted: e.g. [M _{anner} + <i>out</i>]
‘runs’	Glosses of foreign texts in inverted commas
<i>Yijri</i>	Phonemic transcription of foreign texts in <i>italics</i>
:	Colon indicates a long vowel (underlined here but not in the main text) e.g. <i>Yijri:w</i>
(is)	Parentheses in glosses indicate a category that is normally coded in English but is not in Tunisian Arabic. A case in point is the copular verb <i>be</i> : <div style="text-align: center;"> ḥayif liǧzæǧ (is).scared ART=deer ‘The deer is scared’ </div>
1/2/3	First-/Second-/Third-person
ART	Article (definite)
ACC	Accusative
CONJ	Conjunction
F	Feminine
FUT	Future
GEN	Genitive
IMPF	Imperfect aspect
LOC	Locative
LRH	Linguistic Relativity Hypothesis
M	Masculine
NEG	Negation
PART	Participle
PF	Perfect aspect
PL	Plural
POSS	Possessive
PPART	Past Participle
PR	Pronoun
REFL	Reflexive (<i>sayyib</i> ‘to release’; <i>tsayyibit 3li:h</i> ‘release oneself’)
SG	Singular
TA	Tunisian Arabic
TfS	Thinking for Speaking

1. Introduction

We take it for granted that all humans are in essence the same [...] it is equally obvious, however, that this essential underlying unity is overlain by a dazzling external diversity. (Smith and Tsimpli 1995: x)

This thesis engages with the question of the ‘universal’ and the ‘language-specific’ in human linguistic experience of the domain of MOTION. Answers to this question have usually been framed along one of two theoretical positions. A strong view known as the Linguistic Relativity Hypothesis (LRH) proposes that linguistic categories influence non-linguistic thought patterns (e.g. Levinson 1996; Lucy 1992, 2000). A weaker view that claims that “the particular language we speak determines linguistically mediated construals of events, states, and objects” (Stringer 2010: 102) and that “one’s language does determine how one must conceptualize reality when one has to talk about it” (Pinker 1989: 360).

Taking a more firmly linguistic approach than the LRH is the Thinking for Speaking (TfS) hypothesis, formulated by Slobin in (1987) and subsequently developed in his other writings (1996b, 1997, 2000, 2002, 2003). The basic tenet of this approach is that issues of language and mind can be profitably investigated by analysing how universal semantic domains (like MOTION, PLACEMENT, CONTAINMENT, amongst others) are conceptualised when in the acts of speaking, listening, reading, writing or memorising for purposes of later reporting (Slobin 2000). According to this view, since humans spend much of their lives in verbal communication, research into issues of language and conceptualisation remains incomplete if it does not take into account what goes on when thought patterns are being accessed for both production and comprehension (Slobin 1987: 435; 2003: 1).

Crucially, TfS claims that thought patterns are ‘filtered’ and ‘constrained’ by the unique characteristics of native languages when selected for verbalisation:

The activity of thinking takes on a particular quality when it is employed in the activity of speaking. In the evanescent timeframe of constructing utterances in discourse, one fits one’s thoughts into available linguistic forms. A particular utterance is never a direct reflection of “objective” or perceived reality or of an inevitable and universal mental representation of a situation. (Slobin 1987: 435)

Fitting one's thought into available linguistic forms may not be an issue when there is no competing linguistic system. However, an issue arises when a language speaker knows more than one language. In this case, choosing the relevant linguistic system in which to frame one's thoughts may not be as straightforward as it is for monolingual speakers. The TfS hypothesis claims that habitual ways of fitting one's thoughts into the linguistic forms of native languages develop into habits of mind. From this follows two predictions. First, the 'training' one gets in one language could be different from the 'training' one gets in a different language. Second, when speakers of one language try to learn the TfS habits of another language, some kind of 'restructuring' of original thought patterns may be necessary:

Each native language has **trained** its speakers to pay different kinds of attention to events and experiences when talking about them. This training is carried out in childhood and is **exceptionally resistant to restructuring** in adult second-language acquisition. (Slobin 1996a: 89; my emphasis)

Many SLA researchers have seen the TfS hypothesis as the optimal theoretical paradigm in which to examine issues relating to what variously has been referred to as 'ultimate attainment' (Schachter 1990), 'cessation of learning' (Odlin 1993), 'conceptual transfer' (Jarvis and Pavlenko 2008), or 'neural entrenchment' (Ellis 2002) – all denoting some kind of 'failure' of L2 learners to fully acquire target languages largely because of L1 influence (Han 2012: 101).

In this context, Cadierno (2010) points out that the theoretical and empirical claims of the TfS research paradigm promise fertile territory in which traditional L2 learning issues can be investigated anew:

Slobin's thinking-for-speaking hypothesis not only has validity for SLA, but also holds the promise of offering a parsimonious account for a number of SLA conundrums, such as the recalcitrant nature of select influences of native language, inter- and intra-learner variable acquisitional outcomes, fossilization and even seemingly random alternation of target-like and non-target-like behaviors. (Han and Cadierno 2010: xiv-xv)

This renewed interest in what Han (2012: 476) calls "the phenomenon of truncated learning" has coincided with a concomitant change in how issues of language and mind are understood. Notably, the last three decades witnessed the increasing popularity of **cognitive linguistics** as an influential theory of language and conceptualisation. Cognitive linguistics argues for a close relationship between the human body, the mind

and the objective world – a view that runs contrary to approaches to language and mind that emphasise the importance of the formal rules of language at the expense of meaning and language-usage (e.g. Chomsky 1995). Cognitive linguists argue that “the mental grammar of the speaker (his or her knowledge of language) is formed by the abstraction of symbolic units from situated instances of language use”, and, as a consequence, “knowledge of language is knowledge of how language is used” (Evans 2007: 22). From this follows the argument that meaning is an essential aspect of human experience and that “meaning construction equals conceptualisation” (Langacker 2007: 445).

Crucially, cognitive linguists acknowledge that humans share a similar ‘conceptualising capacity’ but also propose that different grammars “encode very different kinds of conceptual systems” (Evans and Green 2006: 56). This suggests that cognitive linguists tend to support –to a greater or lesser degree – the thesis of linguistic relativity (Evans and Green 2006: 101).

This shift in theoretical approaches to the study of language and conceptualisation encouraged researchers in both First Language Acquisition (FLA) and SLA to focus on the ‘relative’ aspect of human conceptualisation based on assumed semantic universals. The focus is no longer on the formal aspects of language knowledge but rather on knowledge of language usage with meaning construction taking centre stage. In this context, Han points out that meaning “can be a greater source of learning difficulty than form” (Han 2012: 479). Similarly, according to Byrnes (2006), it is a common fallacy to see foreign-language learning as the mere extension of grammatical skills acquired through first languages. Language learning involves acquiring new ways of ‘meaning’ and ‘being’:

Instruction and education in general are not merely a matter of polishing up, as it were, existing language abilities but of enabling learners to gain access to new ways of being, even new identities, through language-based social action and interaction. (Byrnes 2006: 5)

That learning a foreign language involves more than transferring L1 knowledge into L2 is by no means a new proposal. Both Slobin (1996b: 91) and Han (2010: 160) quote the German philosopher von Humboldt (1836) who expressed the idea that learning a foreign language involves acquiring new ways of conceptualising the world of experience:

To learn a foreign language should [...] be to acquire **a new standpoint** in the worldview hitherto possessed, and in fact, to a certain extent this is so, since every language contains the **whole conceptual fabric** and **mode of presentation** of a portion of mankind. But because we always carry over, more or less, our own world-view, and even our own **language-view**, this outcome is not purely and completely experienced. (von Humboldt 1836/ 1960: 60, quoted in Han 2010: 160; my emphasis)

In brief, recent trends in SLA studies and cognitive approaches to language and mind converge on similar theoretical assumptions about the nature of language and conceptualisation – namely: (a) that language usage reflects conceptualisation, (b) that different grammars encode different conceptual systems, and (c) that linguistic relativity is a natural consequence of the nature of the human body, language, and experience. As Odlin (2005) points out, the field of SLA and that of linguistic relativity “do indeed have some common concerns, especially in regard to what some second language researchers have called conceptual transfer” (Odlin 2005: 3).

This thesis engages the above thoughts and assumptions about the nature of language, conceptualisation and cross-linguistic difference in thinking-for-speaking (henceforth TfS) in order to address ‘truncated learning’ in second language (L2) learning. In specific terms, in this thesis I seek answers to questions that have emerged as a consequence of the mounting evidence from the study of both first languages and second languages, both at the conceptual level that is **non-linguistic** (e.g., Lucy 1992, Gumperz and Levinson 1996) and that which is **linguistic** (e.g. Slobin 1996a, 1996b). Han and Cadierno (2010) motivates this line of research as follows:

Apparently, [...] different languages predispose their speakers to view and talk about events differently. An obvious question, then, for us and indeed, for the entire second language acquisition (SLA) field, has been this double-barreled question: To what extent does a prior language (L1) affect the acquisition and use of a second language and more profoundly, to what extent does the conceptual system that comes with the L1 affect the development of another compatible with L2? (Han and Cadierno 2010: xii)

While cognitive domains like COLOUR, SPACE, and PLACEMENT have been profitably explored to answer questions of language and conceptualisation in this study I choose to

investigate the semantic domain of Motion because of methodological reasons and reasons that are inherent to the cognitive domain of MOTION itself.¹

First, as far as methodology is concerned, since the current study adopts the same research paradigm as in previous work on the domain of Motion, investigating it anew makes it easier to compare any claims that may emerge out with what has so far been proposed.² Second, there is a general consensus in the literature that the domain of Motion displays universal as well as language-specific characteristics which makes it optimal for investigating cross-linguistic influence and TfS in SLA.

To elaborate, the cognitive domain of MOTION is universally an important part of human life in at least two respects. First, in terms of evolution the categorisation of motion was fundamental in ensuring the survival of the human species (Evans 2010, Loucks and Pederson 2011). People need to be able to distinguish between entities that move and entities that do not. The clearest case for this need is the ability to tell the difference between things that endanger one's life and things that do not. For instance, while a tree may not constitute a threat in that it cannot displace itself, a tiger or a snake can. As well as the ability to tell the difference between a tree and a tiger, the human categoriser needs –among other things –to ascertain the relative speeds at which things move, in what manner they move, and in/on which medium they move (i.e. air, sea, sand) and so forth. This need is independent of language (Jackendoff 1983; Mandler 1992, 1996). In short, the ability to categorise motion does not constitute a luxury for the human race. It is a need. It is a product of evolution.

Motion is also particularly relevant to humans as a “*linguaging*” species.³ Spatial cognition, as many cognitive linguists argue (Lakoff and Johnson 1980, Jackendoff 1983; Talmy 1983; Tyler and Evans 2003; Evans 2010; Loucks and Pederson 2011), plays a fundamental role in the development of abstract thinking in the *linguaging* being. The significance of the conceptualisation of motion shows up in the way it helps humans to metaphorically structure abstract domains. In developmental psychology, for instance, researchers (e.g. Mandler 1992, 1996) have attested to the important role spatial conceptualisation plays in ontological development of categories of ANIMATE

¹ For example, Berlin and Kay (1969) and Roberson (2005) for the domain of COLOUR; Lucy (1992), Gumperz and Levinson (1996), and Bickel (2000) for SPACE and Slobin et al. (2012) for PLACEMENT.

² Talmy's binary motion-event typology and TfS to be introduced presently and will be extensively discussed in Chapter 3.

³ I am following Lee (1996) who claims that Whorf used the form *languageable*. Lee argues “If we can say we breathe, talk, think, walk, or sing, there is no reason why we should not also say we language” (1996: xv).

versus INANIMATE objects, MOVE versus CAUSE-to-MOVE, TRANSITIVE versus INTRANSITIVE. In cognitive linguistics claims have been made that the distinction between COUNT and MASS (Lakoff 1987: 428), CAUSATION and FORCE DYNAMICS⁴ (Talmy 2000); Metaphor and Analogy (e.g. Lakoff and Johnson 1980, Jackendoff 1983, Johnson 1987, Talmy 1996, Evans and Green 2006, Casasanto 2010), social categories⁵ (O’Keefe 1996, Talmy 2000) and TIME can be attributed to our capacity to move in space. As discussed by Evans and Green (2006: 82), TIME is usually expressed through verbs of motion like *come* and *go*, prepositions of space, like *over*, *across*, *towards*, *by* etc., or motionless but spatial verbs expressions like *standing still*.⁶ In short, the conceptualisation of MOTION in SPACE is a gateway to the development (or at least elaboration) of further abstract and essential cognitive categories fundamental to our intelligence and ability to ‘language’.

Although the above arguments promise the psychic unity of humanity, linguistic evidence suggests that this may not be the case. Cross-linguistic evidence at the level of grammar and discourse suggests that this underlying unity camouflages significant variations and that these variations may have ramifications on aspects of ‘linguistic thinking’. It is precisely because the domain of Motion presents itself both as a universal and language-specific domain that it has attracted ample research in recent years. From the perspective of this thesis, Motion especially offers the opportunity to engage with and seek answers to the following questions:

- (1) To what extent does the grammar of a language develop into predictable ways of talking about motion events?
- (2) Do habits of talking about motion events develop into habits of thinking?
- (3) If habits of speaking about motion events become entrenched in conceptualisation as suggested by the TfS hypothesis, to what extent are they so?
- (4) Are they entrenched to such a point that they become an obstacle to successful learning of other languages?

To answer these generic questions, this thesis compares and contrasts the TfS behaviour of native speakers of English, native speakers of Tunisian Arabic (TA), and

⁴ “Force dynamics shows how pervasive motion in space is in understanding aspects of human conceptualisation: social, physical, cultural” (Evans and Green 2006: 200).

⁵ This refers to the domain of social status in the sense that person has a higher or lower social status.

⁶ E.g. *Summer has come and gone in a blink of an eye / Christmas sped by this year* (Evans and Green 2006: 82).

second language speakers of English whose L1 is TA. I provide evidence in favour of TfS in SLA. A set of three elicited narratives shows that mother-tongue training is pervasive when describing motion events; this provides a window on the reasons why learning new ways of TfS may not be achieved when typological differences between L1s and L2s are strong.

There are two main parts to this thesis: (a) a theoretical part concerned with explaining and discussing the main theoretical and analytical paradigms adopted here and (b) an empirical part in which I explore motion event construals in three sets of participants.

The main objective of the first part is to clarify my position, views, and assumptions about the role of language in conceptualisation (Chapter 2). I do this by discussing the place of the Thinking-for-Speaking Hypothesis (TfSH) vis-à-vis the LRH. Following Lee (1996) I argue that the Whorfian theory of linguistic relativity is primarily a theory about **linguistic thinking**, rather than **non-linguistic thinking** as is often assumed (e.g. by Pinker 1989). To the extent that Slobin's hypothesis is concerned with effects of language on linguistic thinking, in 2.3.1 I argue that TfSH may be considered similar to the Whorfian LRH.

With my theoretical views about LRH and TfSH clarified, in Chapter 3 I explain and discuss the main analytical framework I am following in the analysis and interpretation of my data. The analytical frameworks follow –but does not abide by– two main traditions: a grammatical typology advocated by Talmy (1985) and a discourse typology advocated by Berman and Slobin (1994).⁷ Talmy (1985) demonstrates that languages can be classified according to where in a clause the semantic component Path is lexicalised. If Path is encoded in the main verb, this language is said to be **Verb-framed** (V-language). Alternatively, if Path is encoded in a *satellite* – a spatial particle that accompanies the main verb – then this language is said to be **Satellite-framed** (S-language). This contrast can be briefly illustrated with reference to French as an example of a V-language and English as an S-language.

In French, one would typically encode information about Path (i.e. direction or trajectory of motion) in a main verb as in *entrer* versus *sortir de la maison* literally translated as the Latinate English version *enter/exit the house*. However, English typically encodes Path in satellites accompanying the main verb. Consequently, a more

⁷ I propose a new approach to the study of motion events in SLA. This is discussed at length in Chapter 3.

colloquial way of expressing the motion event is by means of the sequence *go into/out of the house* where the semantic component Path is encoded in the spatial particles *into* and *out of*, while the main verb expresses other semantic elements like Motion or Manner (as in *run into/out of the house*). Crucially, Talmy (1985) argues that the preferred lexicalisation patterns of either type of language have important consequences for how Motion is treated in these languages. These consequences are discussed further in 3.2.

Talmy's (1985) motion-event typology has raised several questions for discourse-orientated researchers. One such question is whether the lexicalisation patterns inherent in V-languages and S-languages can influence how speakers habitually talk about motion events. For instance, Berman and Slobin (1994) compared the discourse behaviour of L1 speakers of typologically different languages based on various discourse genres (e.g. storytelling, newspaper articles, and translation materials). They have identified several parameters along which behaviours in V-languages and S-languages tend to differ. These parameters are discussed further in 3.3.

A fundamental question that emerges from both Talmy's and Berman and Slobin's frameworks is how to identify and classify verbs of motion. For instance, in their landmark chapter on the narrative behaviour of English and Spanish speakers, Berman and Slobin (1994) report that English speakers used 47 different motion verbs. These verbs were not categorised further. On closer inspection, the list of verbs reveals types of verbs that are as different as verbs describing Manner via Motion (e.g. *climb*), Cause + Manner via Motion (e.g. *push*), Path via Motion (e.g. *come*), sound emission (e.g. *buzz*), Action (e.g. *knock*). With this in mind, a survey of the linguistic literature (e.g. Gruber 1967; Talmy 1985; Levin 1993; Goldberg 1995, 2003, 2011, 2013a and b; Bencini and Goldberg 2000) reveals that classifying all these types of verbs as motion verbs can be theoretically motivated. It transpires that, when in the presence of spatial particles or prepositional phrases, many non-motion verbs are able to express motion meanings. These proposals are taken into account and a taxonomy for the classification of English motion-describing verbs is consequently proposed in section 3.4.

The main research questions relate to the conceptualisation of motion events in Arabic and English, and more specifically, to the learning difficulties that may emerge out of differences in the lexicalisation patterns of each linguistic system. Consequently, in chapter four, I review the literature that has engaged these questions. Psycholinguistic studies about the non-linguistic conceptualisation of motion events (e.g.

Levinson 1996, Papafragou et al. 2000, Cardini, 2010) and philosophical experiential approaches to Motion (e.g. Johnson 1999, Johnson and Lakoff 2005), are excluded from the review. Instead, in (4.1) I report on lexicographic findings about the behaviour of motion verbs in Modern Standard Arabic (MSA) as a formal literary variety of Arabic (Dana 2013) as well as the spoken varieties of Arabic (Brustad 2000). It transpires that the domain of motion is expressed differently in MSA and spoken Arabic varieties (e.g. Moroccan Arabic).

In 4.2, I review studies in developmental psychology that attest to the influential role linguistic categories play in shaping the conceptualisation of Motion. According to Bowerman (1996), for instance, although children attend to space and motion similarly in the pre-linguistic period (i.e. up to fourteen months), with the onset and consolidation of language, their linguistic behaviour diverge in conformity with their linguistic system.

In 4.3, I review studies of motion events in SLA. There is a lack of consensus as to whether L1 TfS habits influence L2 learning at intermediate levels as well as advanced levels of L2 learning. For instance, Cadierno (2004) and Cadierno and Ruiz (2006) report that L1 influence is pervasive at intermediate levels of L2 learning, but not at advanced levels. On the other hand, Larrañaga et al. (2011) report that even advanced speakers find it difficult to learn a desired target-language TfS behaviour. A closer examination of the approaches adopted by the studies in question, reveals that the lack of consensus between their findings could be due to differences in their experimental designs. These differences are discussed in 4.4.

Chapters 5, 6 and 7 are designed to build on previous research in SLA. They report on the results of comparative studies carried out on three sets of participants whose linguistic backgrounds are different. The overall objective of this endeavour is to tease out potential TfS differences between the three sets of participants –differences that may be explained within a TfS paradigm.

More precisely, in Chapter 5, I report on the results of the elicitation of narratives obtained from 13 speakers of Tunisian Arabic. The exact standing of TA with respect to Talmy's (1985) typology has never been studied and the assumption that TA is best thought of as a verb-framed language is based solely on the fact that TA belongs to the Semitic language group. Using a discourse-analytic approach based on Berman and Slobin (1994) and Slobin (1996a, b), I argue that Talmy's typology does not reveal all about how motion events are conceptualised and talked about in TA. Although the

results corroborate Talmy's (1985) prediction for TA, they also show TA to have several idiosyncratic morpho-syntactic and discourse features which makes it an atypical member of its group. *Compound verb phrases*, *asyndetic coordination*, and the division of labour between *verb-initial* and *noun-initial clauses* in narrative discourse constitute particular features of this language. I conclude that the results cast no doubt on the validity of Talmy's typology and of Slobin's predictions for verb-framed languages. They simply suggest that generalisations are best thought of as guidelines and not as a true reflection of how motion events may be conceptualised and expressed in individual languages.

Once the nature of the linguistic conceptualisation of motion events in TA has been examined, in Chapter 6 I produce first-hand TfS data collected from 13 native speakers of British English. Departing from an assumption that it is useful to have a control group against whom comparison can be made, in section 6.3, I compare the data collected from the current participants to the American English data reported in Berman and Slobin (1994). Despite an overall tendency for both groups to attend to Manner more than they attend to Path, Manner seems to be more salient for the current participants than those of Berman and Slobin (1994). Notably, the current participants have overwhelmingly used non-motion verbs like *shout*, *call*, *echo*, *bark*, and *peep*, or verbs with a very weak sense of motion like *bring*, *take*, and *carry* in combination with Path satellites (*up*, *down*, etc.) to express Motion and its Manner or Cause. The results present a picture where dogs do not just 'bark', but they do so with a specific reference point (e.g. *barks **up** the tree*); and, when the boy 'shouts', he does so with a clear path/direction expressed (e.g. *shouts **down** the hole*).

For want of a term that reflects the importance of this characteristic TfS behaviour of L1 English speakers, I coin the term *motionisation* (6.2.1). The term '**Motionisation**' and its derivative '**to motionise**' refers to a TfS behaviour in which 'typical' and 'atypical' verbs of motion enter a conceptual unity with path satellites and locative expressions to describe a motion event. According to the view adopted here, a *motionised construction* performs one of two TfS functions. It may add more elaborate manner-of-motion details to the description of an event, as in the case of 'sound emission' verbs. Alternatively, when the main verb is semantically weak as (e.g. *get*, *be*, *set*) motionised constructions brings path information into greater focus. From this follows my proposal that motionisation should be seen as a **cognitive/conceptual manipulation** that L1 speakers of English seem to capitalise on when elaborating

various aspects of motion events (i.e. Manner, Path or Cause of motion). Spatial particles like *down* and *up*, *into* and *out* team up with verbs whose motion meaning is ‘basic’ to the verb, as in *run* and *climb*, and verbs whose motion meaning is ‘extended’, as in *look* and *shout*. In this sense, motionisation covers both the coalescing of non-motion verbs into the expression of motion as well as directionalising events by adding more path information to verbs that already encode path meanings (compare *climb/fall* with *climb up/fall down*).

The proposed notion *motionisation* owes its formulation to the collected data in this study but may be said to be an extension to observations seen in Talmy’s (1985) semantic *coercion*, Croft’s (1991) semantic *accommodation*, Cadierno’s (2004) *satellization*, Talmy’s (2007) *spatialization*, Goldberg’s (1995, 2007) *caused-motion construction*, and Slobin’s (2009) discussion of *visual paths* – all notions and/or theories that implicate the English spatial particles in meaning construction. However, *motionisation* differs from these both in terms of its scope of analysis, emphasis and theoretical orientation. These are pointed out as the discussion progresses in 6.2.2 through 6.2.4.

Finally, yet importantly, a third set of elicited narratives is carried out on 13 advanced speakers of English whose L1 is TA (Chapter 7). The main objective of this study is to investigate the nature of L2 TfS behaviour in such a way that it can be compared with the results obtained from L1-TA and L1-Eng narratives. It is predicted that these L2 learners should show TfS behaviours that are idiosyncratic enough to warrant interpretations of a Whorfian kind. If original linguistic conceptualisation acquired through TA proves resistant to change, then these ‘advanced’ speakers of English would show TfS styles that are incompatible with those identified for L1 speakers in Study 2.⁸ With these predictions in mind, analysis of L2 data covers the following parameters: the number, types and quality of motion verbs (7.3.1), how boundary-crossing situations (7.3.2) and how ground elements (7.3.3) are attended to and described.

The differences between L1 and L2 speakers of English are discussed further in Chapter 8. In 8.1, I show that most L2 speakers have not combined satellites and verbs in such a way that indicates a level of ‘conceptual entrenchment’ comparable to that of L1 English speakers. In 8.2, I show that Manner-based ‘motionised constructions’ (i.e.

⁸ The notion of “advancedness” is controversial. It is discussed further in sections 5.1 and 9.2.

[M_{manner} V_{erb} + S_{patial} P_{article}] are more preponderant in L1 data than in L2 data when the crossing of a boundary is at issue. In 8.3, I show that L1 and L2 speakers have paid different levels of attention to the elaboration of ground information largely because L1 speakers have at their disposal a wider range of spatial particles than L2 speakers have. The data suggests that L2 speakers have different attentional patterns to boundary-crossing events than L1-English speakers do, and that these differences are also mirrored in how source (8.3.1) versus target locations and directional meanings (8.3.2) are expressed.

Finally, in 8.4 I accrue even more evidence to support the psychological validity of motionisation as a notion relevant for SLA research. I show that motionisation is not only decisive in how the same TfS content is expressed (e.g. *run **from** the jar* versus *run **out of** the jar*), but more importantly, it is decisive in situations where speakers are ‘forced’ to pick out different aspects of the same reality for TfS purposes.

A summary of the main findings and a discussion of their theoretical import for SLA research and issues of ‘truncated learning’ in instructed settings is addressed in Chapter 9, the concluding chapter to this thesis. If the TfS habits of TA speakers of English have proved as ‘L1-relativised’ as has been the case for many of the L2 participants in this study, then a discussion of their broader pedagogical implications is a justified culmination for this work.⁹

Recently, ample literature has been written about educating advanced foreign language capacities in general (e.g. Byrnes 2006, von Stutterheim and Carroll 2006) and educating non-native teachers of English in particular (e.g. Llurda 2005, Moussou and Llurda 2008, Braine 2010). Despite differences in their theoretical assumptions and motivation, both bodies of research emphasise the need for research into how to promote better learning in instructed settings. This thesis readily shows specific challenges that speakers of Tunisian Arabic face when adapting their thinking-for-Tunisian to thinking-for-English when motion-related events are in focus.¹⁰

⁹ A term borrowed from Han (2010: 181).

¹⁰ *Thinking for English* is an expression used by Boroditsky (2001). I find this term relevant to L2 studies because it reflects cross-linguistic variations. In this context, one may speak about thinking-for-Tunisian that may be different from thinking-for-English.

2. Language and Conceptualisation: Theoretical Frameworks

Diversity in linguistic coding provides the basic data for speculations about relativity, and habitual use of linguistic form. (Slobin 2007: 918)

In this chapter, I assess the relative merits of the Sapir-Whorf hypothesis and the thinking-for-speaking hypothesis in order to clarify the theoretical position this thesis takes with regards to cross-linguistic diversities, thinking, and verbal behaviour. In 2.1, I present the “Whorfian theory-complex” (Lee 1996) and discuss this theory first with reference to Sapir (1921) (section 2.2), and then with reference to Slobin’s TfS hypothesis (section 2.3).

2.1. Whorf’s Theory-Complex

According to Lee (1996: 65) in order to give linguistic relativity theory its due, one needs: (1) to understand what the concepts of language, thought, and reality meant for its proponents Sapir (1921) and Whorf (1956), and (2) to understand how the relationship between these concepts is formulated. Answers to the following questions are thus prerequisite to understanding the claims of the Whorfian Linguistic Relativity Hypothesis:

1. What is language?
2. How does the speaker relate to the outside world?
3. What makes certain communities carry the same imprints of thought and behaviour?
4. Is thought non-linguistic? Is it linguistic? Is it both?

I address these questions in turn.

2.1.1. Language is a System of Patternment and Rapport

According to Whorf (1956), language is a system of signs of structures. The elements of language are not random, but closely linked to other elements within the language. This linkage, or *rapport* as Whorf variously calls it, generates harmony between the elements in the language system (i.e. both semantically and syntactically) (Whorf 1956: 67). The harmony of the language elements makes language an efficient and effective mode of expression for its speakers. Language is, therefore, said to be “formally complete” in the

sense that speakers are able to talk about and interpret anything of significance if the need arises. One consequence of the formal completeness of language, according to Whorf, is that what can be expressed in one language (e.g. situations in the world, thoughts, feelings with relation to those situations, etc.) can also be expressed in a different language even though the way of framing it may be substantially different.¹¹ The language system, therefore, is an “amazingly complex system of linguistic patterns and classifications” (1956: 211). The elements are so integrated that even the specialist may find it difficult to isolate and analyse their patternments (Lucy 1992: 37).

Perhaps the strongest statement about the nature of language as an interlocking system can be seen in Whorf’s emphasis that the complete meaning of words is not to be found in the words themselves as such, but rather by observing its behaviour within the overall system of “patternment”, “linkage” or “rapport”. He argues:

Sense or meaning does not result from words or morphemes but from patterned relations between words and morphemes [...] It is not words mumbled but RAPPORT between words, which enables them to work together at all to any semantic result. (Whorf 1956: 67)

These observations led Whorf to conclude that language has a ‘tyrannical hold’ on linguistic thinking. Language impinges upon thinking since linguistic concepts and rules are not isolated, independent members of the system. Rather, each concept works with many other concepts to form a coordinated, coherent set within each language. However, the fact that language is a complete system does not by itself provide an argument for linguistic determinism. Is the human mind completely helpless and at the mercy of linguistic categorisation? Does the world of nature constrain how categories are formed?

The answers to these questions represent the second cornerstone of the Whorfian theory complex, to which I now turn.

2.1.2. The Outside World is ‘Construed’

According to the Whorfian thesis, our conceptualisation of events and entities is not a mere reflection of an objective world. While Whorf saw the objective world as structured to a certain degree, he did not see the human mind as a passive recipient of that structure. Instead, the human mind imposes classifications, based in large part on

¹¹ Cross-linguistic studies adopting Neo-Whorfian approaches (e.g. Levinson 2003) have documented the relativity of spatial conceptualisation. A case in point is Talmy’s (1985) proposed typology between verb-framed and satellite-framed languages.

the language system it has. It is in this sense that Whorf and Trager (1938; cited in Lee 1996: 146) talk about a “picture” or a “model of the universe”, with speakers having “implicit metaphysics” (1938: 8). The system is then responsible for “framing statements about what goes on in the world as the carriers of the culture see it” (Whorf and Trager 1938: 8-9; quoted in Lee 1996: 146).

According to the Whorfian thesis, the categories essential to human existence (e.g. SPACE, TIME, MOTION) are not discrete units. They form a continuum in space. Classification is then imposed on this continuum by means of the unique patterns of the language so that each linguistic system dissects that continuum differently. He argues that there is nothing in nature that determines which classes of things and actions we grammatically classify as nouns versus verbs. Whorf argues:

It will be found that an “event” to US means “what our language classes as a verb” or something analogized therefrom. And it will be found that it is not possible to define ‘event, thing, object, relationship,’ and so on, from nature, but that to define them always involves circuitous return to the grammatical categories of the definer’s language. (Whorf 1956: 215)

According to Whorf, the objective world is not there staring us in the face. Rather, it is construed according to universal laws (e.g. Figure and Ground; Whorf 1956: 163) that work at the interface between what may be universal and what may be language-specific. According to Lee (1996), many of Whorf’s critics have overlooked this point, which, when taken into consideration, render his statements more relativistic rather than deterministic. She argues that we should understand Whorf’s phrases such as “We cut nature up”, and “organize into concepts, and ascribe significances” to it (1956: 213) with reference to that point. In other words, the “microcosm that each man carries about himself” when measuring and understanding “what he can of the microcosm” is a result of the unique classification of his linguistic patterns, universal laws, and a relatively structured environment (Whorf 1956: 147).

What Whorf was talking about, but without the modern terminology, is ‘construal’. The notion of ‘construal’ is now embraced by many scholars, especially cognitive linguists (e.g. Jackendoff 1983, Langacker 1991, MacLaury 1995, Evans and Green 1996) and cognitive psychologists (e.g. Malt 1995, Barsalou 1999). For instance, Langacker (1987: 487-8) defines *construal* as “the relationship between a speaker (or hearer) and a situation that he conceptualizes and portrays”. Similarly, for MacLaury (1995) the world is not something objectively given, it is something “construed by

human cognition” (1995: 4). Jackendoff (1983) argues that the belief that language conveys information about an objective reality is misleading since it is the projected world that we know – a world “as unconsciously organised by the mind” and that we are able to talk about things “only insofar they have achieved mental representation through these processes of organisation” (1983: 29). Consequently, while “[a]t one level of non-linguistic organization of experience, all humans share the same experiential world, it is upon these foundations that different conceptual worlds are elaborated according to different constellations of cognitive processing which are concomitants of different ways of talking” (Lee 1996: 91).

2.1.3. Agreement and Calibration of Meaning

A fundamental concept in the Whorfian complex is the notion of *agreement*. In simple terms, this means that, within a speech community, there is an agreement about meanings. As Lee (1996: 31) claims, what is agreed upon in Whorf’s sense is which “bits of experience” count and which bits do not count in a particular picture of the universe and how these bits are logically related.

In many ways, for any communication to be successful, speakers need to negotiate meaning or, as Whorf calls it, “the calibration of meanings” (Lee 1996: 32). However, this process is highly subconscious and largely unattended-to in the normal course of thinking and speaking (Lee 1996: 32). Whorf and Trager call this state as “the psychic conscious and subconscious” where “[t]he speaker is not aware that in his thinking talk he classifies” (1938: 11; original underlining quoted in Lee 1996: 149). Since linguistic categorisations operate beyond awareness, they become “fashions of speaking” (Whorf 1956: 158).

Finally yet importantly, if we assume that (1) language is a system, (2) our experience of the world is construed, and (3) there is agreement between language speakers about codable meanings, these assumptions do not by themselves establish a clear-cut understanding of the mutual influence between language, culture and reality. What is left to discuss, therefore, is Whorf’s understanding of the nature and process of this “influence”, how it works, and to what extent. This is taken up next.

2.1.4. Whorf’s Thoughts about ‘Thinking’

According to Lee (1996), a fundamental problem in the discussion of linguistic relativity is ontological. She claims that philosophical, psycholinguistic, anthropological

and linguistic discussions of language and thought have assumed the operational separation of language and thought as distinctive human functions. This has helped nurture the belief that language and thought are indeed separate. She argues that a “methodological, conceptual, and logical decision to categorise some elements of behaviour as having to do with language and others as having to do with thought is taken for granted” (Lee 1996: 27). This “forced separation” and the consequent tendency to regard these as two separate domains of human functioning “allows the formulation of a hypothesis that language may influence thought” (1996: 27). But, what if we assume that language and thought are not separate? Would we still see the relativity hypothesis as controversial?

According to Lee, the answer is negative. The hypothesis that language affects thought is a consequence of a long tradition that saw language and mind as two separate psychological entities, when in fact they may not be.¹² She argues that research has been conducted under this assumption without questioning the validity of dichotomising language and mind (1996: 27). Consequently, if the dichotomy of language and thought is collapsed, then what Whorf had been arguing for ceases to be controversial. Whorf’s primary concern, it seems “is only by extension about language in general (including its non-cognitive aspects) and thought in general (including its non-linguistic aspects)” (Lee 1996: 30). His main concern was language in cognition in the sense that “socially generated and sustained patterns of language use become physically entrenched in cognition and in doing so condition physiological (including neurological) structures, processes, or associated energy fields and bring about adjustments to the overall patterning of mental behavior” (Lee 1996: 30). Whorf argues that thought – insofar as it is linguistic – is determined by the linguistic structures of individual languages. The crux of the matter is that the thinking that is intimately linked with language is linguistic in nature. As Lee argues this is what Whorf seems to be emphasising and that, unlike many of his opponents, Whorf did not consider linguistic processes “to be adjuncts of mentation rather than in any way constituting the activity of mentation itself” (Lee 1996: 66).

However, Whorf did not say that we think in language and nothing else. Lee (1996: 69) claims that when expressing his views about the validity of equating “silent

¹² For a brief review of this tradition see Pederson and Nuyts (1997: 3-6) and Gumperz and Levinson (1996: 2-5). However, a comprehensive review of linguistic relativity is given in Levinson (2003: 6-18).

thinking” with “suppressed talking or mumbled words or silent laryngeal agitations as some have supposed” (Whorf 1956: 66-67), Whorf criticised John B. Watson (1878-1958) for considering thinking to be entirely linguistic. Whorf (1956) stated that Watson has overlooked the fact that “the linguistic aspect of thinking is not a biologically organized process, ‘speech’ or ‘language’, but a cultural organization, i.e., *a language*” (1956: 66; original emphasis; cited in Lee 1996: 69). Lee (1996) confirms:

Whorf’s description of the way linguistic patterning becomes entrenched in cognition were process descriptions [...] and not descriptions of the way a formless substance is contained or given form by a static structure. His statement [...] that any “*activation*” of any “*linguistic processes* or linkages” or linguistic patterning *operations*” whatsoever can be called “thinking” is unequivocally a statement about the dynamic nature of the kind of thinking which is linguistic. Only one kind of behavior – linguistic thinking – is under consideration in these remarks and it is cognitive. There is no evidence that Whorf conceptualized this behaviour in terms of a substance or entity. Indeed the tendency to refer to the process, ‘thinking’, rather than the entity, ‘thought’, is found throughout his writing underscores the dynamism of his conceptualization. (Lee 1996: 73-4; my italics)

According to Lee, many have missed this important aspect of Whorf’s thinking. She criticises Lucy (1992) for misinterpreting Whorf’s theory as a theory about *content* (i.e. concepts) when in fact it is about the *process* of thought (1996: 45). Furthermore, Lee argues that Lucy is doubly mistaken for thinking that Whorf’s research focused on the connection between language and thought in general (1996: 76) when instead it is about language and linguistic thinking.

2.2. The Sapir-Whorf Hypothesis

Whorf was not the only thinker by this time who held the view that the language we speak affects our thinking and behaviour. Sapir, whom Whorf wanted to follow, at times held some very strong views about the influence of language on thought. For instance, according to Sapir each language has its own habits of categorisation and association.¹³ He states that “[w]e see and hear and otherwise experience very largely as we do because the language habits of our community predispose certain choices of interpretation” (Sapir 1949: 69). Additionally, these language habits condition all our thinking about our “lived world”. He argues that “language powerfully conditions all our thinking about social problems and processes” (Sapir 1949: 68–9) and that

¹³ However, Sapir openly retreated from a view of strong linguistic determinism (Lee 1996).

“[h]uman beings do not live in the objective world alone, nor alone in the world of social activity as ordinarily understood, but are very much at the mercy of particular language which have become the medium of expression for their society” (Sapir 1949: 69). Language, therefore, is not just medium of communication but also “largely” of thinking and reasoning:

It is quite an illusion to imagine that one adjusts to reality essentially without language and that language is merely an incidental means of solving specific problems of communication or reflection. (Sapir 1949: 69)

According to Sapir, the influence of linguistic categories are pervasive and operate beyond consciousness to a point where they become “language habits” that operate beyond consciousness (Sapir 1949: 69). When these language habits are considered in cross-linguistic contexts, they would translate into incompatible modes of conceptualisation aspects of the same reality. Sapir argues that “[n]o two languages are ever sufficiently similar to be considered as representing the same social reality” (Sapir 1949: 69) and that “[t]he worlds in which different societies live are distinct worlds, not merely the same world with different labels attached” (Sapir 1949: 69). Our conceptualisation, largely moulded by our linguistic system, “construes” the objective world in different ways.

Consequently, it is clear where Whorf took most of his inspiration from (Lucy 1992, Lee 1996). However, Whorf did not just follow Sapir’s “fashion of speaking”. He also added three things:

i. A little more emphasis:

Users of markedly different grammars are pointed by their grammars towards **different types of observations** and **different evaluations** of externally similar acts of observation, and hence, **are not equivalent as observers** but must arrive at somewhat **different views** of the world. (Whorf 1956: 221; my emphasis)

ii. A little more clarity in terms of methodology:

To compare ways in which different languages differently ‘segment’ the same situation or experience, it is desirable to be able to analyze or ‘segment’ the experience first **in a way independent of any one language** or linguistic stock, a way which will be the same for all observers. (Whorf 1956: 162; my emphasis)

iii. And, a little more concrete evidence:

Our behaviour, and that of Hopi, can be seen to be coordinated in many ways to the linguistically conditioned microcosm. **As in my fire casebook**,

people act about situations in ways which are like the ways they talk about them. (Whorf 1956: 148; my emphasis)

Despite this attempt, many of his supporters have tried to establish a clear boundary between themselves and what they thought they understood the Whorfian thesis to be. One such attempt is that of TfS, the subject matter of my next section.

2.3. The Thinking-for-Speaking Hypothesis

Slobin (1996a, 2000, 2003) provides at least two justifications for choosing to focus on an approach to cognition which concerns itself “with language use and cultural practice” (Slobin 2003:1) rather than an “independent cognitive interpretation of reality” that Lucy (2000: xii) argues for. First, Slobin argues that focusing on ‘processes’ rather than ‘contents’ of the mind is a much more realistic goal given the inherent difficulty in investigating the abstract entity ‘thought.’ The focus should be on “the mental processes that occur during the act of formulating an utterance”, i.e. “those parts that are required by the grammatical organization of the language” (Slobin 1996: 71). Second, investigating language when it is being used online is neglected in research of the linguistic relativity programme, which suggests that potentially significant facts about the nature of conceptualisation have been overlooked. Slobin points out: “Research on linguistic relativity is incomplete without the attention to the cognitive processes that are brought to bear, on line, in the course of using language” (Slobin 2003:1).

In this context, Slobin’s TfS hypothesis proposes that “the contents of the mind take on a special form when they are being mobilised for the verbal expressions” (Slobin 1987: 435). While in the act of speaking, the contents of the mind are coerced into a format that fits the lexicalisation patterns of the language. The job of the language speaker is to select for verbal expression one representation out of many possible representations of a situation. This selection is largely influenced by the language system he/she has internalised since childhood:

A particular utterance is never a direct representation of a situation.... This is evident ... across languages because each language provides a limited set of options for the grammatical encoding of characteristics of objects and events. “thinking for speaking” involves picking those characteristics that (a) fit some conceptualization of the event, and (b) are readily encodable in the language. (Slobin 1987: 435)

Slobin and colleagues gathered different types of linguistic and cognitive evidence to support the above claims and to encourage drawing the following conclusion:

1. The TfS habits of V- and S-language speakers are different.
2. TfS habits about events shape how events are attended to online, how they are memorised for later reporting, and even how they may be imagined.
3. When learning a typologically different second language, our L1 thinking-for-speaking behaviour resists change because of our L1 training.

To elaborate a little more on the above conclusions, the TfS hypothesis claims that mother tongues impose on a speaker specific ways of viewing and conceiving of events – a form of “conceptual training”:

[C]hildren are **trained** by their language – **from early on** – to adopt particular perspectives on events, based on degrees of differentiations of meaning within a semantic domain. (Slobin 2002: 9; my emphasis)

Furthermore, Slobin claims that the training people get in childhood has consequences for long-term conceptualisation – off-line as well as on-line. According to this view, once the mother tongue has trained its speakers to think for speaking in a certain way, learning the different TfS habits of a second language would be severely hampered:

In brief, each native language has **trained** its speakers to pay different kinds of attention to events and expressions when talking about them. This training is carried out in childhood and is exceptionally **resistant to restructuring** in adult second language acquisition. (Slobin 1996a: 89; my emphasis)

In brief, the effects of mother tongue on conceptualisation are not confined to the acquisition of first languages. They extend to second language contexts as well. It seems that once certain TfS habits have been cognitively entrenched, adults would find it hard to adopt different perspectives on events when learning a typologically different second language (Slobin 1996a: 91).

Although the above claims may at first seem controversial, Slobin (1996b, 2000, 2002, 2003) argues that they are not since they do not make any ‘specific’ claims about the influence of language on non-linguistic cognition. He argues that his approach is different from that of Whorf (1956) and other Neo-Whorfian theorists (e.g. Lucy 1992, Gumperz and Levinson 1996, Bickel 2000). Instead, his claims are about the thinking that takes place when speakers are engaged in real-time processing. Whether it is

“thinking-for-speaking”, “thinking-for-writing”, “thinking-for-listening”, “thinking-for-understanding” or even “thinking-for-later-reporting”, the debate and the conclusions which follow from them, he insists, are different from the determinism of Whorf (1956a) (Slobin 1996a: 71). However, despite Slobin’s (1996a) endeavour to set the parameters of his conclusions outside what he claims to be strong Whorfianism, various statements and arguments scattered within his work (e.g. Slobin 2000, 2002, 2003) suggest that the TfS hypothesis is fundamentally similar to Lee’s (1996) take on the Whorfian theory complex. This is discussed next.

2.4. A comparison between Thinking-for-Speaking and the Whorfian Theory-Complex

One can provide at least two solid arguments to show that Slobin’s consistent efforts to distance himself from what he thought to be “strong” Whorfianism is not justified. First, it is increasingly difficult to sustain any faith in the boundary that Slobin and many others have erected between the “linguistic” and the “non-linguistic” aspects of cognition’.¹⁴ Second, Slobin’s formulation of the TfS programme seems to have evolved in time to a point where it becomes almost impossible to tell whether the borderline between strict Whorfianism and “Slobinism” can be maintained.

For instance, the following quotation sounds like a Whorfian dictum with a little twist which comes by slotting in hedges like the ones below in boldface and enclosed in asterisks):

I am convinced that the events of this little picture book are experienced differently by speakers of different languages – **in the process of making a verbalized story out of them**. For example, there is nothing in the pictures themselves that leads English speakers to verbally express whether an event is in progress, or Spanish speakers to note whether it has been completed; to encourage Germanic speakers to formulate elaborate description of trajectories; to make Hebrew speakers indifferent to conceiving of events as durative or bounded in time [...]. I suggest that, in acquiring each of these languages, children are guided by the set of grammaticized distinctions in the language to attend to such features of events ***while speaking*** (Slobin 1996a: 88-89; latter boldface added).

¹⁴ According to Levinson (1991: 14), the difficulty in drawing this distinction can be evidenced in the *splitter* versus *lumper* positions with regard to semantic meaning and conceptual structure. Lumpers are those who conflate meaning in language with the rest of our conceptualisation. *Splitters*, however, are mostly those who believe in the modularity of the human mind. Levinson (1997) joins the *splitter* position and argues that conceptual structure and semantic form are necessarily separate. However, he insists that they are intertranslatable (p39): “[Semantic representations] will induce [conceptual representations] that correspond in conceptual content” (1997: 25). In this work I take a splitter position.

Notice that the clause “**in the process of making a verbalized story out of them**” has been originally bolded by Slobin to emphasise that he meant this statement to be limited to online matters only. My argument is that this decision seems quite forced and that his data seem to warrant a little more affinities with the Whorfian thesis than he cares to commit to.

For instance, if one re-reads the above quote by omitting what I have enclosed between the asterisks, the projected message could be interpreted as Whorfian (Slobin 1996: 86). In fact, if we scour Slobin’s work (1996, 2000, 2002, 2003), we come across numerous examples that show the immense difficulty he faces in maintaining the borderline he erected between thought contents and processes. For instance, consider the following statements:

- The language or languages that we learn in childhood are not neutral coding systems of an objective reality. Rather, each one is a subjective orientation to the world of human experience and this orientation affects the ways in which we think ***while we are speaking***. (1996: 91, asterisks and boldface added)
- [...] one cannot escape the influences of language ***while in the process of formulating or interpreting verbal messages***.” (Slobin 2000: 107, asterisks and boldface added)

It is intriguing that Slobin describes first languages as being “not a neutral code of an objective reality” (Slobin 1996a: 91) and that first languages “carr[y] unique views about the world that affects how we end up construing experience and hence reason about it” (Slobin 2000: 126). In his opinion, it “seems to be clear the language-acquiring child is pointed towards different types of observation while formulating and interpreting everyday utterances” (Slobin 2000: 126) and that “the evidence he collected suggest that speakers have “divergent mental worlds” congruent with language types. (Slobin 2000: 133). As far as Slobin is concerned, in the semantic domain motion, different language types lead “to the discovery of different ways – perhaps significantly different ways – of conceptualizing the dimensions of motion events (Slobin 2000: 213).

He further adds, that “[A] particular utterance is never a direct reflection of objective reality” (Slobin 2000: 107); that “more rigorous demonstrations” can show “widespread ‘ripple effects’ of habitual attention to linguistically-encoded event characteristics” (Slobin 2003: 159), and that “the preferred construction type in a language predisposes speakers to deal differently with [...] motion events” (2000:109). Consequently,

“speakers of the two languages differ in their habitual attention to manner of motion” (Slobin 2000: 113).

Even Slobin’s conclusions about the nature of the acquisition process of motion event-related categories suggest that TfS hypothesis warrants more than what the theory originally (1996a) set out to argue for. In this context, Slobin argues that “thinking for speaking becomes automatized, yet still relative to particular language” (2003:165) and that children are “guided” (1996: 89) and “trained” (2002: 14) by their language.

Perhaps one of the strongest views Slobin expressed about the deterministic aspect of linguistic habits on thinking relates to memory and imagery. He argues that “language habits eventually end up shaping our memories and experience of the domain of motion” (2003: 170-171).

It is also important to remember that Slobin’s most obvious departure from the original framework of the TfS programme lies in how broad its scope of enquiry has become:

I’ll use the label “thinking for speaking,” but the framework embraces all forms of linguistic production (speaking, writing, signing) and reception (listening, reading, viewing), as well as a range of mental processes (understanding, imagining, remembering, etc.). Thus there will be examples of “thinking for translating,” “listening for understanding,” and so forth. (Slobin 2003: 159)

More intriguing still is that Slobin has tried to identify effects of language on higher cognitive structures like memory and imagery. He argues that variability in linguistic structures is not only revealed in acts of speaking and thinking for speaking, but must also appear in how information is memorised for further coding at later dates, other settings, and contexts (2000: 126). The outcome of the memory experiments confirmed that S-language speakers tend to experience more “mental imagery” about Manner than those of V-language speakers (2000: 127).

It is particularly significant that on one occasion Slobin (2000) chose to end his article with a note from Sapir which, according to my own reading of the Sapir-Whorf hypothesis, signals nothing less than a linguistically determined view of some aspects of human experience:

It is highly important to realize that once the form of a language is established it can discover meanings for its speakers which are not simply traceable to the given quality of experience itself but must be explained to a larger extent as the projection of potential meanings

into the raw material of experience. (Sapir 1933/1958: 10; cited in Slobin 2000: 133)

To conclude, the history of the Whorfian thesis has shown that any strong claims about the impact of language on long-term cognition will remain controversial. According to Lee (1996) and Gumperz and Levinson (1996), the anathema that developed in academia around the Whorfian thesis was then still on-going, despite the increasing empirical evidence in its favour. This has led Relativists to either tone down their claims about the impact of language on cognition (e.g. Berman and Slobin 1994; Levelt 1989; Slobin 1987, 1996a, 2000, 2002, 2003) or to try to adapt it to current theoretical frameworks (Gumperz and Levinson 1996). Within the assumption that the Sapir-Whorf hypothesis offers a strong and a weak form, Slobin's TfSH is generally accepted as a version of the weaker Linguistic Relativity Hypothesis (Gumperz and Levinson 1996, Cardini 2010). Despite the concerns that I have raised about some of Slobin's efforts to distance TfS hypothesis from 'Whorfianism' as understood in this thesis I continue to adopt this research tradition as it is associated with the two main topics which has given rise to this research, namely: the linguistic typology of motion events and linguistic relativity in SLA.

3. Motion in Grammar and Discourse: Analytical Frameworks

This chapter explains and discusses two approaches to the analysis of motion events: a grammatical-typological approach based on seminal work of Leonard Talmy (1985) and a discourse-typological approach based on the work of Berman and Slobin (1994) and Slobin (1996b). This survey is important to this thesis for two main reasons. First, it explains how the domain of Motion may be analysed in language and discourse. This provides essential guidelines for the experimental part of this research. Second, a combination of the works of Talmy (1985), Berman and Slobin (1994) and Slobin (1996b) provides a comprehensive picture of the linguistic conceptualisation of motion events in S-framed languages (i.e. English), and a V-framed languages (i.e. Spanish).

3.1. Motion Events: A Grammatical Typology

According to Talmy (1985), a motion event is “a situation containing movement or the maintenance of a stationary location alike” (1985: 60). This suggests that a motion event expresses two different situations: one of location and one of motion. The following examples taken from Talmy (1985: 61) illustrate this point:

- (1) a. The pencil *rolled* off the table→ (Motion)
b. The pencil *blew* off the table→ (Motion)
- (2) a. The pencil *lay* on the table→ (Location)
b. The pencil *stuck* on (to) the table (after I glued it)→(Location)

According to Talmy (1985), all the examples in (1) and (2) express events of motion. While the examples in (1) describe a dynamic activity (i.e. change of location) by means of the verbs *blow* and *roll*, the examples in (2) express a static situation where the verbs *lay* and *stick* do not encode a change of location meaning. Location situations and motion events can be further analysed into their component parts, as discussed in the next subsection.

3.1.1. The Semantic Components of a Motion Event

An important aspect of Talmy’s approach is the assumption that elements of the meaning of a motion event can be isolated from the surface forms onto which they are coded. He postulates six semantic components that are important to framing a motion

event in language. These divide into four primary components, Figure, Ground, Path, and Motion, and two secondary components, Manner and Cause.

The Figure, as Talmy (1985) defines it, is “the core schema of a motion event. It is ‘the object’ [...] moving or located with respect to another object (the reference Object)” (1985: 61). In the following examples, *the pencil* acts as the Figure, which is moving in (3a) but stationary in (3b):

- (3) a. The pencil rolled off the table.
- b. The pencil lay on the table.

Ground refers to the reference object according to which the Figure is moving or being located. The noun phrase *the table* acts as the reference object against which the pencil is moving in (3a) or being located in (3b). The semantic component of Motion distinguishes situations of ‘locative’ and ‘translocative’ motion. The verb *roll* in (3a) expresses a dynamic motion, while in the verb *lay* in (3b) expresses a static location. The semantic component of *Path* “is the course followed or site occupied by the Figure object with respect to Ground object” (Talmy 1985: 61). In (3a) Path is expressed by means of the particle *off*, while in (3b) it is expressed by means of the locative preposition *on*.

Two things should be emphasised about the status of Path within this typology. First, Path refers to both location (i.e. or the site occupied by the Figure) and the direction taken by the Figure (i.e. the course followed). Second, within this typology, Path is considered to be the ‘core schema’ of the motion event.

The semantic component of Manner describes the way in which a Figure is moving or is located. In (3a) above, the verb *lay* describes the manner in which the pencil is being located while in (3b) the verb *roll* describes the manner in which the pencil is moving. Compare, for instance, the verbs *go* versus *run* versus *hop* for manner of dynamic motion and the verbs *sit* versus *lay* versus *lean* for static motion. All these verbs express different manners of motion or location (i.e. different postures).

The semantic component of Cause describes whether the motion or location of a Figure is enacted by an external force or is self-initiated. For instance, both (3a) and (3b) describe a motion event in which the Figure is non-agentive. The verb *roll* in (1a), for example, does not provide the reason the pencil rolled off the table. However, in *I flicked the ant off my plant* (Talmy 1985: 63) the ant is caused to move by the Figure (i.e. *I*) exerting a force of ‘flicking’ on it.

Given the above accounts, two questions need to be addressed. First, why are the components of Figure, Ground, Path, and Motion treated as ‘core-event’ components of a motion event while Manner and Cause are considered as ‘co-event’ components? Similarly, in what respect should one understand the claim that Path is the ‘core schema’ of a motion event?

In Talmy’s (1985) view, any language needs basic elements of meaning to express a motion event. Manner and Cause, although essential aspects of a motion event, are peripheral, in that they do not need to be encoded in language in order for a motion event to be described. For instance, *The pencil is on the table* tells us nothing about the Manner or Cause of its locatedness. However, if we try to omit any of the other four core components from the clause in question anomaly and/or ungrammaticality arises. For instance, the omission of the Figure in (4a), of Motion in (4b), of Path in (4c) and of Ground in (4d) yields a set of incomplete clauses:

- (4) a. *[...] is on the table
- b. The pencil *[...] on the table
- c. The pencil is *[...] the table
- d. The pencil is on *[...]

Furthermore, Path is treated as a core schema in this typology because of the assumption that Path is differentially conflated in various language types. In what follows, I explore this assumption in more detail.

3.1.2. The Mapping of Semantic Forms onto Surface Forms

In Talmy’s view, the way in which the semantic components of a motion event map onto surface forms in language is largely not one-to-one (1985: 57). In principle, the six conceptual components outlined above may variously attach to surface elements in language. They may attach to verbs, adpositions, subordinate clauses, particles and prepositions. I discuss these notions at length in sections 3.1.1 and 3.1.2. However, it is important to note at this stage that, once a certain language has a certain association (i.e. lexicalisation pattern) between semantic components and surface forms, it becomes inherent in the system or, as Talmy (1985) suggests in the following quote, it becomes a defining feature of that language:

Any language uses only one type ... for the verb in its most characteristic expression of motion. Here ‘characteristic’ means that:
 (i) It is colloquial in style, rather than literary, stilted, etc. (ii) It is frequent in occurrence in speech, rather than only occasional. (iii) It is

pervasive, rather than limited, that is, a wide range of semantic notions are expressed in this type. (Talmy 1985: 63)

With this in mind, Talmy proposes that a binary typology can be formulated depending on where in the clause the core component of Path is mapped: on the main verb or on an associated path particle which he calls a *satellite* (1985: 113-114). Verb-framed languages conflate the core schema of Path with the fact of Motion in the main verb. Examples of these languages are Romance languages like Spanish and French and Semitic languages like Hebrew and Arabic. Satellite-framed languages, on the other hand, conflate the semantic components of Manner and Motion in the main verb, leaving the core schema of Path to be coded onto satellites. Examples of these languages include Germanic languages like English, German, Danish and Swedish.

In order to appreciate the explanatory power of this typology, consider Figure 3.1, which shows a schematic representation of how the semantic elements of Motion, Manner, and Path are variously mapped onto word classes in French and English:

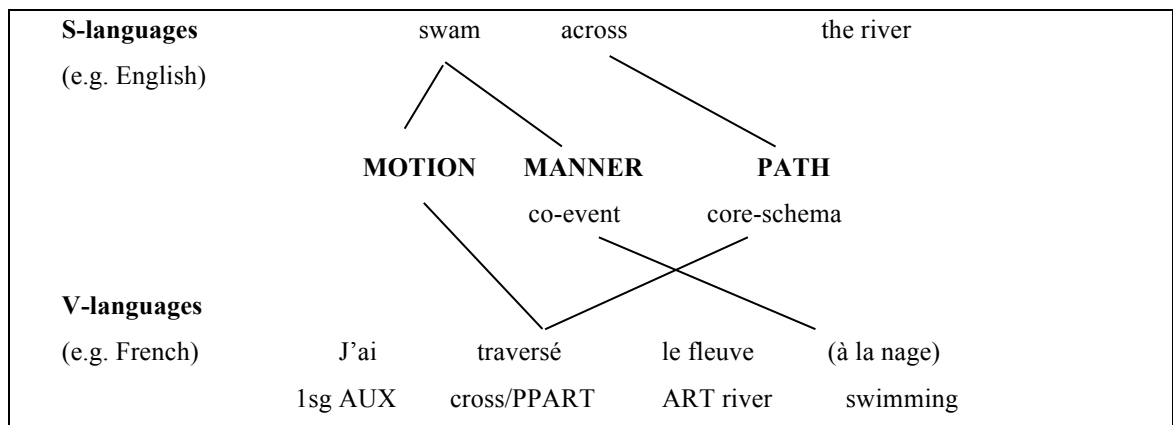


Figure 3.1: Mapping Patterns between the Conceptual Components of Motion Events and Parts-of-speech in S-framed and V-framed Languages (Zlatev et al. 2010: 390).

Figure 3.1 shows that the main difference between English and French is in the mapping of the semantic elements Path and Manner in the clause, namely: the main verb versus satellites versus adjuncts/subordinate clauses. In English, the verb *swim* conflates the semantic elements of Motion and Manner while the satellite *across* encodes the core element of Path. In French, the lexicalisation pattern of the core schema is different. In this case, the co-event of Manner is expressed in a subordinate clause while the core schema Path is conflated with Motion in the main verb. Note that the subordinate clause in the French example is included in parentheses because it is grammatically and semantically acceptable to say *J'ai traversé le fleuve* 'I crossed the

river’ without specifying Manner (i.e. *à la nage* ‘by swimming’). To leave out the Path element in this French case results in an ungrammatical sentence: **J’ai le fleuve à la nage* ‘I’ve the river **swimming**’.

This ‘language-internal constraint’ on the conflation of core versus peripheral elements of meaning has consequences for the nature of the lexicon of motion verbs and the syntactic behaviour of word classes (i.e. verbs, subordinate clauses and adpositions) in each language type. With particular reference to English, I now explore the syntactic and semantic behaviour of satellites and discuss their status in this typology.

3.1.3. Satellites

In English, satellites usually express the semantic component of Path¹⁵ (Talmy 1985: 103). Although path satellites belong to a closed set, in a language like English they are rather numerous. Prototypical members of this category are satellites like *up* and *down*, *in* and *out*. Table 2.1 shows 21 English satellites:

Table 3.1: Path satellites in English (Adapted from Talmy 1985: 104)

I ran <i>in</i>	It flew <i>up</i>	He ran <i>along</i>
I ran <i>out</i>	It flew <i>down</i>	He ran <i>around</i>
I got <i>on</i>	I went <i>above</i>	He ran <i>past/by</i>
I got <i>off</i>	I went <i>below</i>	He ran <i>away</i>
She came <i>over</i> ₁	He ran <i>through</i>	He ran <i>back</i>
It toppled <i>over</i> ₂	He ran <i>across</i>	She came <i>forth</i>
		They rolled <i>apart</i>
		They slammed <i>together</i>

Based on Table 3.1, one can make two observations about the behaviour of satellites in English. First, while some of these examples show path satellites forming a constituent with manner verbs like *ran* and *flew*, other satellites have teamed up with path deictic verbs like *come* and *go* and semantically ‘bleached’ verbs like *get*. These suggest that redundant information in terms of Path is not disfavoured in English. Second, it suggests that path satellites can accompany verbs that do not necessarily encode any motion information, be it Manner, Path, Cause or even Motion itself (e.g. *get*). Third, the satellite *over* is listed twice, because in English a single satellite may express more than one Path sense. Examples of this kind are the following:

¹⁵ According to Talmy (1985: 110), satellites do not only encode Path. They can encode Manner as well. Nez Perce – a language of North America – has at least 19 manner satellites. These satellites are prefixes, which not only express locomotive manners but also manners of affect (‘in anger’) and activity (‘on the warpath’). Talmy (1985) also claims that in some languages satellites can express Cause. In languages with such satellites (e.g. Atsugewi, a Hokan language of northern California), “the equivalent of any of these satellites would be equal to a whole subordinate clause expressing causation in English” (1985: 112).

- (5) a. It fell/toppled/turned/flipped *over*₁ (Talmy 1985: 105)
 b. He came *over*₂ (to ours)

According to Talmy (1985: 105) in (5a) and (5b) *over* expresses different meanings. While in (5a) the satellite *over* has a sense of ‘rotation around a horizontal axis’, the directional preposition in (5b) has a resultative (i.e. reaching a goal) sense.¹⁶

As well as the satellites listed above, English has another set of path-encoding satellites. These vary from adjectives like *loose*, *free*, *clear* and *full* to prefixes like *un-* or *over-*. Examples in (6) and (7) taken from Talmy (1985: 104) illustrate these two types of satellites respectively:

- (6) a. The bone pulled *loose* (from its socket).
 b. The coin melted *free* (from ice).
 c. She swam *clear* (of an oncoming ship).
 d. The tub quickly poured *full* (of hot water).
 (7) a. The bolt must have *unscrewed* (from the plate).
 b. The eaves *overhang* the garden.

The list of satellites in Table 3.1 and those in (6) and (7) demonstrate that the category of satellites in English is not uniform. Morphologically, satellites can be either free morphemes – as in the case of *up* and *loose* – or, bound morphemes – as in the case of *un-* and *over-*. They may be prefixes (e.g. *un-* and *over-*), adjectives (e.g. *loose*) or prepositions (e.g. *up*). Given the inherent heterogeneity of this class, the question of whether it is possible to pin down definitional criteria for the identification of satellites is in order.

Talmy (1985) provides the following guidelines:

[S]atellites are certain **immediate constituents** of a verb root other than inflections, auxiliaries, or nominal arguments. They relate to the verb root as periphery (or **modifiers**) to a head. A verb root together with its satellites **forms a constituent** in its own right, ‘the verb complex’. (Talmy 1985: 102; my emphasis)

Three criteria can be extracted from the above definition. First, satellites are **immediate constituents** of the main verb. Second, they **modify** the head with which they are associated (i.e. the main verb). Third, satellites form a constituent structure with the verb making it a **complex verb**. These claims raise the following questions: what does it mean for a satellite to form a constituent with a headword? Equally, how does a satellite modify its head?

¹⁶ In fact, Tyler and Evans (2003: 79-106) discuss fifteen different senses for *over*.

Talmy (1985) does not elaborate fully on these defining criteria. However, insights from Börjars and Burridge (2010) suggest that these definitional criteria are best seen as guidelines and not watertight measures to identify satellites. By way of example, let us examine whether *out* behaves as a Talmyan satellite in *He ran out of the house*.

Assuming that Talmy intends a constituent to mean “a string of words which function as a group or as a unit at some level” (Börjars and Burridge 2010: 24), one may argue that the particle *out* may form a constituent with either the verb *run* as in [run out] or the prepositional phrase [out of the house].¹⁷

Traditionally, tests like *movement* and *clefting* have been used to identify constituents of a phrase (Börjars and Burridge 2010: 24). For instance, the movement test holds that only full constituents can be moved around in the clause without affecting the grammaticality of the clause (2010: 25). Applying this to the clause *The boy ran out of the house*, (8a) and (8b) show that [out of the house] is a constituent while [of the house] alone is not a constituent:

- (8) a. [Out of the house], the boy ran.
- b. *[Of the house], the boy ran out.

Similarly, *clefting* can only be used with a string of words which form a constituent as follows:

- (9) a. *It is [of the house] the boy ran out.
- b. It is [out of the house] that the boy ran.

Although the above constituents seem to work against Talmy’s definition of what satellites are, it is possible to draw some distinctions between the syntactic behaviour of satellites and prepositions in English. Notably, Talmy (1985: 103) suggests that prepositional phrases are generally omissible without affecting meaning in a clause. The omission of satellites, however, incurs a change in the meaning of the clause, as shown in (10):

- (10) a. He ran _S[out] _{PP}[of the house].
- b. He _{VC}[ran out] _{PP}[Ø].
- c. *He ran [Ø] [of the house].

The omission of the prepositional phrase in (10b) does not affect the grammaticality of the clause. However, there is a substantial change in grammaticality in (10c) where

¹⁷ “A phrasal verb consists of a verb and an adverb particle that function together as a unit. We call the second parts of these verbs particles because they differ from mainstream adverbs in having very little semantic content” (Börjars and Burridge 2010: 99). “Often you’ll find the phrasal verb unit assumes a quite idiomatic sense; that is a unique meaning which in no way derives from the sum of the parts” (Börjars and Burridge 2010: 99).

[Ø] indicates a missing path satellite. The verb *run* expresses Motion but does not provide the directional Path component for the sentence. Despite the usefulness of the omission test, Talmy (1985) cautions that satellites are better seen as participating in different grammatical relations rather than forming a distinct and independent grammatical class:

In some cases, elements that are encountered acting as satellites to a verb root otherwise belong to particular recognizable grammatical categories; therefore, it seems better to consider the satellite role **not** as a grammatical category in its own right but as a **new kind of grammatical relation**. (Talmy 1985: 102; my emphasis)

Perhaps the main difficulty in determining the status of satellites in English lies in their distribution within the clause. In English, satellites and prepositions usually occur after the verb. This is different from the way satellites and prepositions behave in some other Indo-European languages like Latin, Classical Greek and Russian (Talmy 1985: 105). In these languages, it is easy to tell the difference between the two. Satellites occur before the head verb while prepositions occur after the verb forming a constituent with the noun they modify (Talmy 1985: 105). In addition, prepositions and satellites in English tend to have the same surface forms (e.g. *over*).

To the extent that satellites need to be differentiated from prepositions, Talmy (1985: 105-106) proposes the following criteria:

- i. Only prepositions will disappear when a ground nominal is omitted.
A satellite remains.
- ii. Some forms are only satellites or prepositions. For instance:
Satellites only: *together*, *apart*, and *forth*
Preposition only: *from*, *at*, and *toward*.
- iii. Forms serving both a satellite and a preposition function often have different senses in each. Thus: *To* as a preposition (*I went to the store*) is different from *to* as a satellite (*I came to*). *Over* in its sense of 'rotation around a horizontal axis' (*it fell/toppled/turned/flipped over*) does not have a close semantic counterpart in prepositional *over* with its 'above' or 'covering' senses (*over the treetop*, *over the wall*).
- iv. Satellites receive heavy stress.

- v. Prepositions receive less stress.
- vi. Prepositions are always positioned before the nominal.
- vii. Satellites may follow a direct object, and must follow a pronoun

e.g., *I drove **him** in.*

It is important to note that, although the above criteria may be useful in differentiating satellites from prepositions, individually they may not be reliable tests in all contexts. For instance, consider criterion (vi). According to Berman and Slobin (1994), English is one of very fewest languages that allow prepositions to be positioned away from the nominal head with which it makes a constituent. “Dangling” or “orphan” prepositions, as Berman and Slobin (1994: 159) call them, occur in questions as in (11a) or relative clauses as in (11b):

- (11) a. Where are you going *to*?
 b. The dog has found something new to look *at*.

Moreover, the inherent difficulty in drawing a sharp line between satellites and prepositions in English is further evidenced in the valence requirements of some satellites. As Talmy (1985) argues:

There are also satellites that basically refer to other notions, such as Path, but themselves incorporate valence requirements. When these are used with verbs that have no competing requirements, it is they that determine the grammatical relations of the surrounding nominals. (Talmy 1985: 117)

In English these path satellites (or satellites + preposition combinations) tend to refer to surfaces as in the case of *onto* and *all over*, or interiors as in *into*:

- (12) a. Water poured *onto* the table
 ‘to point on the surface of’ (Talmy 1985: 117)
 b. Water poured *all over* the table.
 ‘to all points on the surface of’ (Talmy 1985: 117).

Note that in (12a) and (12b) the satellites *onto* and *all over* subcategorise for a prepositional object (*the table*). Note also that these sentences are non-agentive and that *water* is the subject of the clause. This same pattern applies as well to the agentive sentences in (13), except that what is the subject nominal is now the direct object:

- (13) a. I poured the water *onto* the table.
 b. I poured the water *all over* the table.
 c. I poured water *into* the tub.

Some satellites acting as prepositions can be preceded either by a Figure or a Ground nominal. Talmy (1985: 119) calls this process *valence precedence*. For instance, in examples (14a) and (14b) – taken from Talmy (1985: 119) – the satellite *through* is flexible with respect to the kind of nominal that precedes it. In (14a) the Figure (i.e. my sword) precedes *through* and the Ground follows it, while in (14b) the arrangement is reversed:

- (14) a. (*it*= ‘my sword’)
 b. I (A) ran it (F) through him (G).
 c. I (A) ran him (G) through with it (F).

Another aspect in which the status of English satellites may be fuzzy relates to the category of aspect. According to Talmy (1985) whilst satellites in English usually express Path, some of them also express Aspect. The following examples, taken from Talmy (1985: 114-115), illustrate this point:

- (15) *Over*:
 When it got to the end, the record automatically **started over** from the beginning. (‘again/ anew’).
 (16) *On*:
 She stopped at gas station first, and then she drove **on** from there.
 He barged **on** in.
 (17) *Away*:
 They gossiped **away** about all their neighbours.
 Read **away**!
 (18) *Off*:
 I read **off** the names on the list.
 All koalas in this area have died **off**.
 (19) *Up*:
 The log burned **up** in 2 hours.
 The dog chewed the mat **up** in 2 hours.
 (20) *Back*:
 He teased her, so she teased him **back**.

According to Talmy (1985), a close examination of the above examples suggests these types of satellites do not express aspect in its pure form. Rather, they also express senses of ‘manner’, ‘quantity’, ‘intention’, and other factors. In this sense, Talmy (1985) claims:

Frequently, these satellites do not indicate purely ‘the distribution pattern of action through time’ [...]. This purer form is mixed with, or shades off into, indications of manner, quantity, intention, and other factors. Accordingly, **a liberal interpretation** is given to aspect. (Talmy 1985: 114; my emphasis)

From a cognitive linguistic point of view, aspectual satellites should neither be surprising nor should they be a cause for concern. As discussed in the introduction to this thesis, current trends in cognitive linguistics argue that the conceptualisation of TIME is closely related to the conceptualisation of physical MOTION. If this line of reasoning is accepted, then, it is only expected that motion meanings in locative particles – to use Talmy’s (1985: 114) expression – ‘shades off into’ the expression of aspectual meanings. As such, one may argue that *teasing* somebody *back* as in example (20) suggests an imaginary journey between two interlocutors where a certain teasing activity has travelled from a speaker A to a recipient B. The teasing then has completed the journey back to where it originated from, namely from B to A. As Talmy argues in the above quote, unless a liberal definition of aspect is applied in all examples in (15) through to (20), it is difficult to draw a line between path satellites describing physical movement and abstract meanings which may extend from them.

3.1.4. Discussion

It is important to note that Talmy (1985) did not set out to investigate the actualisation of lexicalisation patterns in discourse. It is also important to remember that most of Talmy’s data came from his intuitions as a native speaker of English and his knowledge of other languages. To some extent the premise that language typology rests upon necessary and sufficient conditions for membership – namely, that certain ways of motion event description are (i) colloquial in style, (ii) frequent in occurrence in speech, rather than only occasional and (iii) pervasive rather than limited (1985: 63) — may be said to be speculative. Therefore, what is needed is to see whether Talmy’s (1985) claims and predictions for S-languages, V-languages, and their speakers are supported empirically. This is the subject of the next section.

3.2. Motion Events: A Discourse Typology

Motivated by Talmy’s (1985) grammatical typology, Berman and Slobin (1994) compared the verbal performances of speakers of different S- and V-languages and conclude that “that typologies of grammar have consequences for ‘typologies of rhetoric’ (Slobin 1996: 218).

Although at its inception this project was about “the temporal development of temporal expression in [...] English and Hebrew” (Berman and Slobin 1994: 2), it soon developed into wide-ranging cross-linguistic research into the development of spatial as

well as temporal categories in both child language development and adult discourse behaviour. The main theoretical assumption behind this research tradition is that “form and function interact in development” and that “the development of grammar cannot be profitably considered without attention to the psycholinguistic and communicative demands of the production of connected discourse” (Berman and Slobin 1994: 2).

The main method of investigation consisted of eliciting spoken narratives from children of 3 to 11 years old (Slobin 2000: 111). Adults were included as a control group against whom children’s data could be compared and analysed. Adults in this respect served as “some theoretical ‘endstate model’ which children should achieve in narrating the contents of a pictured story” (1994: 75).

Since the aim of the project was initially developmental, the elicitation material had to be suitable for children as well as for adults. A children’s storybook by Mercer Mayer (1969) called ‘*Frog, where are you?*’ provided the optimal elicitation material in at least three respects. First, in terms of content, the story was accessible to both children and adults. The book itself consists of 24 wordless pictures (see Appendix 1) about a boy who has lost his pet frog and goes looking for it until he finds it. Second, by using a single elicitation material across ages and languages, results are easily compared. Third, the plot of the story contains several twists and turns of events which make it possible to elicit suitable data for the investigation of temporal as well spatial categories. Slobin (1996b) argues this point for the case of motion-event description:

The events depicted in *Frog, Where are you?* invite a rich array of motion descriptions. A pet frog escapes from its jar and a boy and his dog go looking for the lost frog. Their search involves falling from a window, climbing and falling from a tree, climbing a rock and getting entangled in the antlers of a deer who throws the boy and dog over a cliff into some water, and finally climbing out of the water and over a log to discover the runaway frog. (Slobin 1996b: 197)

Setting practical fieldwork problems aside (Berthele 2009), the elicitation procedure adopted in the Berman and Slobin (1994) research paradigm may be described as straightforward on the whole. Strömquist and Verhoeven (2004) describe it as follows:

The recipe for frog-story research is simple. Ask your subjects to browse through the picture booklet [...]. Then ask them to tell the story, in their own words, as they page through the booklet at their own pace. Repeat the data-collection procedure with subjects of a different language or age, or with subjects with impaired language development. Or repeat the procedure with the same subjects in a different condition (for example speaking versus writing or first

versus second language). Then compare the results. (Strömqvist and Verhoeven 2004: 4-5)

Whilst the methodology has been described as simple, the findings emerging from this research project have been described as “unexpected” (Berman and Slobin 1994: 2), and therefore, “impressive” (Slobin 1996b: 199). Converging lines of evidence from works on different languages (usually compared to English) suggested to Slobin (1996b) and his colleagues (e.g. see the volume edited by Strömqvist and Verhoeven 2004) that a strict adherence to Talmy’s typology neither allows for language-internal variations nor informs on how speakers’ attention is influenced by the inherent variations between the language systems.

For instance, according to Slobin (1996b) although Spanish predominantly conflates Motion with Path in the main verb, it also has verbs that are neutral with regard to ‘directionality’, such as *ir* ‘go, get’, as well as verbs that conflate Motion with Manner, such as *correr* ‘run’. He also points out that Spanish has ‘complex verbs’ that combine Manner and what seem to be satellites (e.g. *correr abajo* ‘run down’) (Slobin 1996b: 214). Furthermore, both English and Spanish have locative constructions in which verbs of motion and locative prepositions (e.g. *from, to*) can be used to talk about Grounds and Locations (Slobin 1996b: 214). Consequently, the interesting question for Slobin (1996b) is whether speakers of each language type would prefer specific modes of expression rather than others even though, in principle, their grammars do not “prevent” them from exploring either option. Seen from this perspective, a more pertinent question is whether V-language speakers would show rhetorical styles that may be markedly different from those of S-language speakers, and if so, how and why.

At least three parameters of variations have been identified in the narrative behaviour of V-language speakers and S-language speakers. I discuss these with reference to English and Spanish.

3.2.1. Verbs: Number, Types, and Quality

Data collected from 48 Spanish and 48 English children (age groups 3, 4, 5, and 9) and 12 Spanish and 12 English adults (university students) yielded 47 motion verbs for English and 27 for Spanish. Analysis of the types of verbs each group used showed that English narrators have used more manner verbs than the Spanish narrators. It also showed that the manner verbs each group used differ in terms of their expressive details. Notably, V-language speakers tend to use “neutral” and “everyday manner” verbs like

the English *go*, *run* or *jump*.¹⁸ Slobin (1996b) claims that V-language speakers tend to use quite ‘neutral’ verbs of motion to describe the manner of motion of various creatures. In this case, people may be said to ‘go’ and so may fish, cats and owls. This is different from English where manner-of-motion verbs often describe very specific movements: e.g. *plummet*, *splat*, and *swoop*.

According to Slobin (1996b), the disparity in terms of verb count has implications for how Manner details are attended to in general. He postulates that when Manner can be conflated with Motion in obligatory constituents of a clause (i.e. the main verb), a degree of cognitive ease becomes the prerogative of speakers of this type of language. Conversely, when Manner information is ‘pushed out’ of the main verb to be coded onto optional constituents like subordinate clauses and adjuncts, a certain cognitive load is incurred on V-language speakers. This would discourage V-language speakers from focusing on Manner details overall:

It is as if the availability of the combined slot for MOTION and MANNER in S-languages has encouraged speakers to elaborate the entries in this slot. There is **no additional “cost”** to adding richer manner expressions, since the slot must be filled by some verb or other in order for a syntactically complete sentence to be produced. By contrast, the optional slot for MANNER expression in a V-language **has some “cost”**, in that it adds an element or phrase to the sentence. Thus it is retained for situations in which manner is truly at issue – because it is unexpected or unusual. (Slobin 2000: 113; my emphasis)

Perhaps what is even more interesting when it comes to motion verbs is Slobin’s (1996b) claim that English narrators (but not Spanish narrators) prefer to create many different motion-verb and satellite combinations to describe motion events. For instance, he observes that out of the 47 motion verbs identified in the 60 English stories, 127 different constructions combined motion verbs and spatial particles like *out*, *into*, *off*, *through*, etc. Crucially, the same was not reported for the 60 Spanish stories and this was judged as “impressive” (Slobin 1996b: 199).

3.2.2. The Boundary-Crossing Constraint

According to Slobin and Hoiting (1994), the relative lack of manner expressions in V-languages can also be explained by what they call the **boundary-crossing constraint**. According to this hypothesis, in V-languages manner verbs are not allowed as main verbs when a boundary is being crossed. For instance, one scene involves a motion

¹⁸ Ibarretxe-Antuñano (2004: 94) calls them *first-tier verbs*.

event where an owl emerges out of a hole in a tree. Since this event involves a crossing the boundary between ‘in’ and ‘out’ of the tree, English speakers are reported to say ‘the owl *flew* **out** of the hole’, while Spanish speakers avoid describing the crossing of the boundary. Instead, the tendency is to say the equivalent of ‘the owl *flew* **from** the tree’.

Occasionally, the boundary-crossing constraint may be relaxed in V-language narratives. This usually takes place in situations where V-language speakers seem to conceptualise a ‘sudden’ boundary-crossing as a ‘change of state’ (e.g. *plunge*). However, if a verb depicts an activity that extends through time/space rather than a sudden change of state (*crawl* instead of *plunge*) then V-language speakers are reluctant to express this situation using a manner verb. Consequently, when activities depicting motion of high-energy motor patterns are experienced as individual discrete acts (e.g. *plunge*, *throw oneself*) rather than a series of activities (*crawl*, *stagger*, etc.), then the boundary-crossing constraint is relaxed:

[B]oundary crossing is a change of state and manner verbs are generally activity verbs. The only manner verbs that can occur in boundary crossing situations are those that are not readily conceived of as activities, but rather as “instantaneous” acts. Thus one can ‘throw oneself into a room’ but one can’t generally ‘crawl into a room’ in V-languages. (Slobin 2004: 226)

3.2.3. Elaboration of Ground

Basing their analysis at the clause level, Berman and Slobin (1994) and Slobin (1996b) claim that the differences in the rhetorical styles of the Spanish speakers and English speakers is not confined to the verb classes and their associated satellites but also extends to the frequency with which ground details are elaborated. They claim that in principle bare verbs like the Spanish *caerse* ‘fall’ and the English complex verb *fall down* may be considered semantically identical since neither of these verb forms expresses anything about the *source* or *goal* of the movement of the Figure. In this context, Slobin (1996: 201) differentiates between *minus-ground* clauses and *plus-ground* clauses. Minus-ground clauses include bare verbs (e.g. *climb*) or non-bare verb complexes (e.g. *go up*) that indicate the motion activity and direction of movement but are not explicit about ground information. Plus-ground clauses, however, have in addition one or more phrases encoding source and/or goal (1996: 201). Examples in (21) and (22) illustrate this point. Bracketed nominals indicate ground elements. Where the ground is not coded the symbol [Ø] is used:

- (21) Minus-ground clauses
 a. The frog *escaped* [Ø].
 b. The frog *ran off* [Ø].
- (22) Plus-ground clauses
 a. The frog *escaped from* [the jar].
 b. The frog *jumped out of* [the jar] and into [the field].

The question that emerges from this distinction is whether the abundance of satellites and manner verbs in English has any effects on how often the source and goal of a motion event are expressed in narratives (Slobin 1996b: 201).¹⁹ In other words, it is interesting to see whether attention to ground information in discourse is influenced by the typological variation between the two language systems.

Slobin (1996b: 201) reports that English frog stories had 18% minus-ground clauses compared to 82% plus-ground clauses. Spanish stories, however, had 37% minus-ground clauses and only 63% plus-type clauses (1996b: 201). Percentages extracted from data based on a comparison of Spanish and English novels showed the same results (1996b: 207). Motion clauses in English novels were 4% minus-ground compared to 19% in Spanish.²⁰ Plus-ground clauses were 96% in English novels compared to 81% for Spanish novels.

Thus, the use of minus-ground clauses and plus-ground clauses seems more balanced in the Spanish narratives (37% and 63%) than the English ones (18% against 82%). In Slobin's (1996b) view, these findings are significant since they show that "the overall tendency is for English narratives to use more ground adjuncts with regard to verbs of motion than Spanish narratives" and that overall "English-speaking narrators may pay more attention to path details than Spanish-speakers" (1996b: 201).

Slobin points out that English speakers are privileged by their grammars to use what he calls **clause-compacting** strategies. This refers to the ability to sequence different locative phrases in relation to a single verb. Examples in (23) illustrate this point. (23a) is taken from Slobin (1996b) and (23b) is a hypothetical one:

- (23) a. He [the deer] starts running and _{G1}[tips him **off**], _{G2}[**over** a cliff],
 _{G3}[**into** the pond]. (Slobin 1996b: 202)
- b. He went _{G1}[**out** of the house], _{G2}[**down** the hill], _{G3}[**through** the
 forest], and _{G4}[**into** the village].

¹⁹ E.g. The deer tipped him _{Source} [**off** his antlers] _{Milestone} [**over** a cliff] _{Goal} [**into** the pond].

²⁰ The figures are "based on **all** verbs of motion in the frog stories" (1996b: 201).

Example (23a) shows that three ground elements are elaborated by means of three prepositional phrases and a single motion verb. The verb *tip* is followed by information about unspecified source element indicated by the spatial particle **off**, information about the milestone of the journey (i.e. **over** a cliff), and information about the goal of motion (i.e. **into** the pond). Similarly, in (23b) the speaker packs three ground elements into one clause. The main verb *go* is followed by source information (**out** of the house), milestones (**down** the hill and **through** the forest) and the goal of motion (**into** the village). Although locative prepositional phrases are available in Spanish, no clause-compacting strategies have been comparably employed by Spanish speakers. Slobin (1996b) accounts for this by claiming that V-language speakers are constrained by a ‘one-ground-element-per-verb’ restriction, which prevents ground elements from being stacked up within a clause (Slobin 1996b: 203).

3.2.4. Elaboration of Journeys

Slobin (1996b) hypothesised that Spanish narrators may override grammatical constraints at the level of the clause when a motion event spans over more than a single path event or, as Slobin (1996b) calls it, a *journey*. He defines a journey as “a complex path [...] that is an extended path that includes **milestones** or **subgoals**. In addition, a path can be situated in a **medium** (along a road, through the water, etc)” (Slobin 1996b: 202).

The main motivation behind extending the analysis of motion-event description from clause level to considering longer stretches is that, in real contexts, narrators may need more than one clause to elaborate a journey. *Clause-chaining* – conjoining clauses by means of co-ordinating conjunctions – may prove useful for Spanish narrators who are limited by their language to express one ground element per main verb (Slobin 1996b: 202).

The cliff scene (see Appendix 1, picture 19-22) in the frog story has been selected by Slobin to test this hypothesis. The scene consists of the following six sub-events: (i) deer starts to run; (ii) deer runs carrying the boy; (iii) deer stops at cliff; (iv) deer throws boy (off antlers/down); (v) boy and dog fall; (vi) boy and dog land in water. In framing his aim and methodology for this particular task, Slobin (1996b) states:

The analysis includes all of the verbs used to describe **downward motion** and **caused motion** in these scenes (mainly versions of ‘fall’ and ‘throw’). At issue is whether the verb occurred alone or with some kind of locative addition – a particle, prepositional phrase, or

adverbial expression indicating downward direction, source, or goal of motion. ‘Bare verbs’ thus provide no elaboration of path beyond the inherent directionality of the verb itself. (Slobin 1996b: 200)

Slobin found that the Spanish narrators did not analyse this scene in more segments than English narrators did. This was deemed interesting since Spanish grammar does not prohibit the use of subordination or coordination in order to string clauses together. All of the English speakers and only 75 per cent of Spanish speakers provided three or more segments of this journey. Slobin (1996b) concludes that “Spanish speakers do not ‘compensate’ for minimal use of source-goal clauses by means of a series of separate action clauses that analyse a journey into its components” (1996b: 203-4). Slobin (1996b: 204) hypothesised that the use of subordinate clauses is ‘stylistically heavy’ and ‘cognitively more demanding’. Consequently, V-language speakers tend to leave much of the ground information to be inferred from context and background knowledge (Slobin 1997).

3.2.5. Description of Motion versus Scene-Setting

If V-language speakers’ narratives are comparatively lacking in Manner and Ground information, are they perhaps focusing on other aspects of a narrative? Slobin (1996b) suggests that Spanish speakers do. They tend to focus on providing more information about **the setting** in which the motion and its path are elaborated rather than on the Manner and the particulars of the journey the Figure is following (1996:200). Therefore, there seems to be a kind of “trade-off”. Slobin (1996b) provides the following examples to illustrate this variation:

- (24) [T]he deer stops abruptly, which causes the boy to lose his balance and fall with the dog **down into** the stream. (1996: 202; my emphasis)

- (25) Los tiró a un precipio donde habia harta agua. Entonces se cayeron.
 ‘[The deer] threw him at a **cliff** where there was lots of **water**.
 Then they fell in.’ (Slobin 1996b: 204, my emphasis).

According to Slobin (1996b), example (24) confirms that the location of the river is under the place where the deer stops. This is indicated by the satellite *down* combined with locative expression *into the stream*. The location of the cliff is not explicitly coded. Instead it is left to be inferred from the translocative verb (i.e. *fall*), the direction (i.e. *down*), and the goal (i.e. *into the stream*). In (25), however, the Spanish speaker explicitly describes the position of the pond with respect to the cliff. This draws attention to two static locations, *the cliff* and *the water*, leaving direction to be inferred from the relative position of these two grounds with respect to one another (i.e. one is higher than the other is). Therefore, Slobin (1996b) concludes that Spanish narrators tend to focus on the **setting** in which the fall takes place rather than on the trajectory (i.e. path details) and the **dynamics** (i.e. manner) of the fall itself.

3.2.6. Discussion

One may raise the objection that a single example is hardly sufficient to allow for generalisations about how journeys tend to be elaborated.²¹ Furthermore, examples (24) and (25) project a picture that is inconsistent with Slobin’s (1996b) own claims about the expression of minus- versus plus-ground in the narrative of the Spanish speakers and the English speakers. For instance, judged from (24) and (25) alone, one could argue that the Spanish speakers have used more plus-ground elements (i.e. *pond* and *cliff*), while the English have used only one (i.e. *the water*). This is consistent with the other two Spanish examples given by Slobin (1996: 204).²² Consequently, although Spanish narrators prefer to focus on settings rather than on movement, the claim that S-language speakers use more plus-ground clauses than V-language speakers is not supported—at least as far as these examples are concerned.

Furthermore, it is important to note that Berman and Slobin’s (1994) listings of the 47 motion verbs collected from their English subjects was not accompanied with a comprehensive discussion of the status of motion verbs in English. Notably, they do not address the question of which criteria they have used to determine which verbs to

²¹ This is one of three examples given by Slobin (1996b).

²² *El ciervo le llevó hasta un sitio, donde debajo habia un rio. Entonces el ciervo tiró al perro y al niño al rio. Y después, cayeron.*
 ‘The deer took him until a **place**, where below there was a **river**. Then the deer threw the dog and the boy to the **river**. And then they fell’ (1996b: 204).

include and which to exclude from motion-verb analysis and what motivates these choices.

Admittedly, scattered hints may be gleaned from their writings. For instance, in the analysis of *The cliff scene*, Slobin (1996b) mentions that “whether the verb occurred alone or with some kind of locative addition – a particle, prepositional phrase, or adverbial expression indicating downward direction, source, or goal of motion” were taken into account (Slobin 1996b: 200). Furthermore, although the analysis of motion events has been extended “from verbs of motion to include associated locative phrases, and have gone from individual motion verbs to series of clauses, **the focus has remained on descriptions of movement**” (Slobin 1996b: 204; my emphasis).

More importantly, when discussing the use of spatial particles in the frog stories, Berman and Slobin (1994: 156-157) have observed that “locative particles add a directional element to motion verbs –as in *go in*, *climb up*, *swim over*” (1994: 156), as well as “nonmotion activity verbs, both transitive and intransitive” (1994: 159). This is the case of the verb *bite* in *He’s trying to bite the tree down*; the verb *pull* in *The deer pulls him up*; the verb *look* in *They looked over to the other side*; and the verb *smile* in *The dog’s is smiling down* (all cited in Berman and Slobin 1994: 159).

Although the above observations are insightful, they are not transparent about how motion verb are analysed. The observation that “satellite particles **can also** assign directionality to nonmotion activity verbs” says nothing about the relative importance of this syntactico-semantic feature in English and the narrative behaviour of its speakers. The observation that analysis of motion events focuses on “the description of movement” (1996b: 204) overlooks the fact that ‘movement’ is itself a fuzzy concept – not especially within Talmy’s framework where Motion is equated with both location and translocation.

As I show presently, several caveats about the behaviour of English verbs need spelling out and taken into account if descriptive adequacy about the domain of Motion is to be achieved. It transpires that it is difficult to pin down a motion-verb class in English. To the extent that this claim is true, a review of the selected literature about the behaviour of motion verbs in English may be insightful. This is the subject of the next section.

3.3. What are Motion Verbs?

As far as I am aware, Berman and Slobin (1994) and Slobin (1996b) have not discussed the semantics of the verbs they have categorised as motion verbs nor have they provided enough information about the context of their use so that the reader can formulate a clear definition of the motion-verb class.

A possible reason for this is that Talmy (1985) himself has not given it due attention. Zlatev and Yanglang (2004: 162) raise this point: “[w]ork in motion event typology [...] has been hampered by a lack of clear definitions” and “Talmy 1985 is somewhat to blame for this, since in this highly influential paper, these terminological issues [i.e. how to decide what a semantic category is being conflated by different expressions] were left unclear” (2004: 162). They further argue that even the category of Manner is left “ill-defined” (2004: 163).

In fact, when a different analytical approach is applied onto the motion verbs reported for Spanish and English in Berman and Slobin (1994), several caveats arise. Notably, Berman and Slobin (1994: 198) presented their lists of verb types in no particular order. The discussion of these lists was developed in terms of three broad verb categories: Manner, Path or Caused-Motion. However, if one attempts to subcategorise these verbs further into types of manner, paths, or caused-motion, membership criteria becomes fuzzy.

To appreciate this point, I have subcategorised Berman and Slobin’s (1994) data into the following five categories:

- i. Manner verbs that describe something about the ‘speed’, ‘vehicle’, and ‘motor pattern’ of motion, e.g. *run, ride, fly*.
- ii. Verbs that describe some kind of ‘sounds’, e.g. *buzz*
- iii. General activity verbs, e.g. *knock*
- iv. Caused-motion verbs, e.g. *push*
- v. Path verbs, e.g. *depart*

Berman and Slobin’s listings of the English motion verbs (see Appendix 2) show that verbs like *buzz, splash, and splat* have been categorised as English motion verbs despite the fact that outside of a motion context these verbs profile various meanings associated with the production of ‘sounds’. Berman and Slobin (1994) have not discussed why such verbs were classed as motion verbs. More importantly, equivalent terms for the verbs *buzz, splash, and splat* have not been reported for the Spanish data (see appendix 3). This fact raises the question as to why the Spanish have not used similar verbs in their narratives. Could it be that the Spanish do not have corresponding concepts for

these verbs? Could it be that verbs of ‘sound emission’ behave differently in English and Spanish?

A similar line of enquiry may be raised with respect to the verb *knock*. Typically, the English verb *knock* describes an action performed by an agent involving some type of force on an object. So, *knock, knock! Who’s there?* does not describe any motion that is comparable to that profiled in ‘locative’ verbs like *sit* or dynamic verbs like *run*. As in the case of sound emission verbs, non-locomotive ‘action’ verbs like *knock* have not been reported for the Spanish data, which in turn raises the question of why the Spanish speakers have not used such verbs in their narratives.

In order to probe these matters further one needs to go beyond the confines of lexico-grammatical and discourse typologies. English motion verbs have long been of interest to linguists whose theoretical backgrounds and orientations are as different as generative grammar (Gruber 1967), developmental psychology (Landau and Gleitman 1985), lexicology (Levin 1993), and construction grammar (Goldberg 1995, 2007, 2011, 2013a and b). As Levin points out:

Verbs of motion are frequently cited as a large and important class within the English verb inventory. Yet a study of the syntactic behaviour of the verbs shows that this class is not homogeneous. (Levin 1993: 15)

There is a suggestion in the literature, therefore, that the classification of motion verbs in English is by no means a straightforward undertaking. The challenges lie in the fact that the syntactic frames in which typical verbs of motion operate are the same ones in which non-motion verbs also operate. Consequently, the extent to which the syntactic behaviour of verbs “shades off into” their semantics remains an important question for the analysis of motion verbs.

Seen from this perspective, it is only logical that research into the conceptualisation of motion events takes into consideration what has been said about the behaviour of English verbs *a priori* so that an informative decision is reached about what criteria to apply to determine the status of a verb in relation to motion-verb class membership. It is to these matters I now turn.

3.3.1. Are ‘Perception’ Verbs Motion Verbs?

Perception verbs like *see* and *look* typically profile an activity in which the agent perceives and/or categorises entities and events visually. Several observations are echoed in the literature that these verbs also encode meanings of motion (Gruber 1967,

Landau and Gleitman 1982, and more recently Talmy 1996, 2000; and Slobin 2009).²³ The basic assumption behind these proposals is that verbs, which are used in the same syntactic frame, tend to share similar meanings.

In Gruber's view, for instance, to the extent that verbs of perception occur in the same syntactic frames as typical motion suggests the grammar treats perception verbs as "motional" (1967: 940). To illustrate, consider the syntactic frames in which the verb *see* occurs:

- (26) a. Bill thought he could **see into** the room.
 b. It is easy to **see through** this glass.
 c. The baby **saw over** the rim of the nest.
 d. Using X-ray vision, Superman **saw behind** the tree.
 (Gruber, 1967: 937)

Gruber (1967) notes that the verb *see* in the above examples is used intransitively and is followed by prepositions as different as *into*, *through*, *over*, and *behind*.²⁴ He points out that these same prepositions also would occur with typical motion verbs describing acts of 'flying' or 'running' for instance:

- (27) The frightened bird *flew into/over/through/behind* the bush.

Crucially, Gruber (1967) claims that a sentence like 'John sees a cat' is a metaphorical extension of a clause like 'John goes to a cat'. This similarity in underlying structure is no different from 'John sees across the room' to 'John goes across the room', which in turn may be paraphrased as 'John's gaze goes across the room'. He argues that if the paraphrase of [motion verb + *across*] is acceptable then it should be equally acceptable to say 'John's gaze goes to the cat' as semantically close to 'John sees the cat' (1967: 943). Based on these observations, Gruber concludes in utterances like *John sees a cat*, a schematic meaning of TO is "incorporated into the semantics of *see* even when it is not overtly lexicalized" (1967: 938).

Furthermore, Gruber (1967) observes that there is a division of labour in the syntactic behaviour of English 'perception' verbs. Notably, he argues that while *see* usually teams up with prepositions that has an underlying meaning 'reaching a goal', the verb

²³ I came across Slobin's (2009) article long after I finished the first draft of this thesis. This article is little-cited and has not in any way motivated the direction of my research. Although Slobin (2009) clearly states that he is inspired by the works of Gruber (1967) and (Talmy 1996), he limits his discussion to the verb *look*. This is different from the claims I am putting here. I discuss this article further in chapter eight.

²⁴ Recall some of these are satellites in Talmy's approach (e.g. *into*).

look teams up with prepositions whose underlying meaning is ‘measuring out’ distance. The following examples taken from Gruber (1967: 943-944) illustrate his point:

- (28) a. run toward the tree
 b. *saw toward the house
 c. look toward the house
 d. *look to the tree
 e. look toward the well

According to Gruber, the verb *see* will only accept those prepositions that have an underlying meaning of TO and not TOWARD. The verb *look*, however, will only accept prepositions with an underlying meaning TOWARD. In this respect, Gruber argues that *look* complements *see* in the expression of motional meanings (1967: 42).

Following Gruber’s analysis of the verbs *see* and *look*, Landau and Gleitman (1985) compared the acquisition of *see* and *look* by visually-impaired children and sighted children. They claim that for sighted children as well as the visually impaired, *look* is ‘motion **toward**’ and *see* ‘is motion **to**’ and that the “concepts *look* and *see* are spatial and encode the notions of location and motion” (1985: 135). Additionally, Landau and Gleitman (1985) argue that blind children construe the world of experience through haptic modalities on the one hand, and through their intuitive knowledge of the English argument structure on the other. In their words, “where the eye is missing... the young learner is predisposed to consider the sentence of English in terms of a predicate-argument logic in which the verb serves as the predicate itself and the various nominals surrounding it serve as its arguments (1985: 123).²⁵ Since perceptual verbs behave syntactically much like verbs of physical motion in terms of the spatial prepositional phrases they allow (1985: 128), they hypothesised that blind children learn the distinction between *see* and *look* by formulating their own theories based on argument structure. To the extent that ‘motherese’ is replete with [*see/look* + spatial particles] constructions, Landau and Gleitman claim that blind children would eventually develop a hypothesis that is consonant with that of linguists –namely: “syntactic privileges of occurrence of verbs are intimately related to the concepts they encode” (1985: 141).²⁶

To sum up, the motional and non-motional interpretations of the verbs *see* and *look* are “fully predictable” from the type of prepositions they tend to be associated with in the input data. Crucially, while Gruber argues that ‘motional’ meanings form part of the

²⁵ Children seem to know how many arguments a particular **verb intent** requires, without instruction. The subcategorisation frames are at least partly a function of the semantic properties of the verbs (Landau and Gleitman 1985:135).

²⁶ The input language associated with mother talk.

underlying semantics of the perception verbs themselves, Landau and Gleitman argue that alternate interpretations should not be treated “as properties of the predicate *look* and *see* but is a consequence of the syntactic frame of their occurrences” (1985: 143).

3.3.2. Are ‘Sound Emission’ Verbs Motion Verbs?

According to Levin (1993), speakers of English know –among other things –that certain English verbs manifest “extended meanings” (or senses). In her view, if the basic meaning of a verb encodes Motion, then, its semantic interpretation would not be affected by adjoining constituents in the clause. However, if a verb’s basic meaning changes because of other constituent in the clause, then the newly acquired meaning is said to be **an extension** from the basic meaning.

To illustrate this point, consider the verbs *run*, *leave* and *whistle*, in the following extracts. They show that the omission of the locative expressions associated with these verbs suggests that motion meanings are “basic” in the case of (29) and (30) but “extended” in the case of (31a), where the locative-less (31b) is marked as # because it is semantically anomalous:

- (29) a. The man *ran* into the room. (Levin 1993: 15)
- b. The man *ran*.
- (30) a. George *left* for England last night.
- b. George *left*.
- (31) a. The bullet *whistled* through the window. (Levin 1993: 15)
- b. #The bullet *whistled*.

The distinction of basic and extended meanings is not confined to verbs of sound emission, of course. Levin points out that many verbs in English exhibit similar kinds of polysemy. This suggests to her that there is more to the representation of verbs than the mere specifications of its argument structure. A verb’s meanings dictate its syntactic distribution and not the argument structure of verbs alone as often noted in generative linguistics. The notions of extended versus basic meanings are “representative of a wide range of phenomena that suggest that a speaker’s knowledge of the properties of a verb goes well beyond an awareness of the simple expressions of its arguments (1993: 4).

In line with Gruber (1967) and Landau and Gleitman (1985), Levin observes that verbs whose extended senses are ‘motional’ must be classed as motion verbs since they show “the complement-taking properties of verbs of motion [...], which is only available in the presence of a directional phrase” (1993). For instance, Levin’s (1993: 15) discusses the different meanings of *whistle* in *The bullet whistled through the air*

based on interpretations found in two different dictionaries. The main point raised is that *whistle* offers both a motion that is adhered to in *Collins English Dictionary* and a non-motion simply a sound effect as stated in *Webster's Ninth Collegiate Dictionary*. He argues while in latter the interpretation is “to make a shrill clear sound, esp. by rapid movement”, in *Collins* it is explained as “to move with a whistling sound caused by rapid passage through the air”. Levin argues that the motion interpretation is probably correct for this particular use of the verb *whistle* because in this construction it shares some properties with manner verbs such as *run*: neither verb is inherently directional, but both can be used as verbs of directed motion in the presence of a directional preposition. As such, in *The bullet whistled through the window* and *The man ran into the room*, the verbs *run* and *whistle* seem to share some colligational properties, and hence, a shared reading of directed motion sense.

Unlike, Gruber (1967), however, Levin argues that native speakers have a solid appreciation of the interaction between semantic meaning and their various syntactic distributions, so much so that their “ability to make subtle judgments about possible and actual verbs and their properties makes it unlikely that all a speaker knows about a verb is indicated in its lexical entry” (Levin 1993: 4).

3.3.3. Motion verbs in Construction Grammar

It is not the intention of this section to provide a survey of Construction Grammar (CG). I only discuss the points that may widen our understanding of the behaviour of motion verbs in English. Consequently, I focus on Goldberg's claim that is highly compatible – in principle at least – with Levin's notion of **basic** versus **extended** meanings of English verbs on the one hand, and Gruber's claims that verbs of vision behave in English as if they are motion verbs. It must be pointed out at the start that Goldberg's CG opposes Levin's approach especially with respect to whether extended meaning of motion discussed above should be attributed to the main verb itself, the preposition with which it is associated or –as Goldberg argues –with a hypothesised construction schema that carries in itself a constructed schematic meaning regardless of the lexical items that may encode it (1995: 1).

CG views *constructions* as “the units of the linguistic system, accepted as convention in the speech community and entrenched as grammatical knowledge in the speaker's mind” (Ellis and Ferreira-Junior 2009: 370). Construction grammarians are interested in explaining issues related to verb alternations – that is how similar verbs occur in

different argument-structure patterns resulting in these verbs acquiring different senses (Bencini and Goldberg 2000: 642).

A pertinent aspect of the constructionist perspective is the observation that non-motion verbs in English are capable of acquiring motion interpretations by merely appearing in constructions that license such interpretations (Goldberg 1995; Bencini and Goldberg 2000, Suttle and Goldberg 2011, Goldberg 2013). Two constructions are of particular interest here. The first is the caused-motion construction whose argument structure is presented in (32a) and the second is the intransitive motion construction presented in (32b). In both constructions V is a non-stative verb and OBL is a directional phrase (Goldberg 1995: 152):

(32) a. *Caused Motion*:

X	CAUSES	Y	to MOVE Z
Sub	V	Obj	Obl
Pat	sneezed	the napkin	off the table.

b. *Intransitive*:

X	MOVES	Y
Subj	V	Obl
The fly	buzzed	into the room.

According to Goldberg (1995: 152), constructions reflect different but common experiences. The caused-motion construction, for instance, is an abstract form that is said to have emerged from general human experience. This skeletal construction exists independent of the verbs that may occupy it:

Constructions which correspond to basic sentence types encode as their **central senses** event types that are **basic to human experience** [...] that of someone causing something, something moving, something being in a state, something causing a change of state or location, something undergoing a change of state or location. (Goldberg, 1995: 39; my emphasis)

To illustrate Goldberg's claims consider the examples in (33). In her view, all clauses in (33) are instances of the same construction even though the main verbs that occupy them usually differ on the transitivity (e.g. *help*, *spray*) and intransitivity (e.g. *laugh*, *sneeze*) parameter in their basic usages:

- (33) a. They **laughed** the poor guy out of the room.
 b. Frank **sneezed** the tissue off the table.
 c. Mary **urged** Bill into the house.
 d. Sue **let** the water out of the bathtub.

- e. Sam **helped** him into the car.
 - f. They **sprayed** the paint onto the wall.
- (Goldberg 1995: 152)

Goldberg (1995) claims that despite the differences in their primary meanings and their inherent argument structures, the above sentences are instances of a single construction whose “basic semantics [...] is that the causer argument directly causes the theme argument to move along a path designated by the directional phrase” (1995: 152).

Crucially, Bencini and Goldberg (2000) point out that the newly acquired motion senses of the verbs *sneeze* and *laugh* as in (33a) and (33b) are not to be stipulated as part of the core meaning of these verbs. Rather, the motional meanings are constructed ‘on line’ as a result of the caused-motion construction. They argue “[in] a constructional approach, the stipulation of these implausible verb senses is avoided by recognizing that the phrasal pattern itself is associated with the meanings of caused motion” (2000: 649) and that it is the “types of complement configurations [that] play a crucial role in sentence interpretation, independent of the contribution of the main verb” (2000: 649).

Of course, the argument that the caused-motion meanings are imposed by the construction does not mean that the primary senses play no part in the novel reading of the clause. As Goldberg observes “[i]n point of fact, when a verb lexically codes a particular meaning, it generally carries that meaning with it when it appears in other constructions (2013: 445). Crucially, what constructions like those presented in (33) do is that they add arguments that are not necessarily predictable from the verbs’ primary meanings and also make it possible for verbs to be used creatively (2013: 453).

In short, to the extent that constructionists (e.g. Goldberg 1995: 1; Ellis 2009: 370) believe that language learning involves the learning of constructions, the analysis of motion events is incomplete if both the “basic” and the ‘extended’ or “unusual cases of verbs” are not taken into consideration.

3.4. Summary and Discussion

The domain of motion plays an important role in how humans construe the world of experience. It plays a fundamental role in how concrete as well abstract categories are developed. From this perspective, the conceptualisation of motion may be said to be universal. Yet cross-linguistic evidence shows that this seemingly universal domain is represented differently in different languages.

Based on a componential approach to the semantics of Motion, Talmy (1985) proposes that elements of meaning in language can be isolated from the surface forms to which they are attached. Depending on where in a sentence the core feature of Path is lexicalised (in the main verb or in a satellite), languages split into Verb-framed and Satellite-framed types. A fundamental syntactic feature upon which this typology rests is that of satellite. A survey of this notion with reference to English suggested it is difficult to provide necessary and sufficient conditions for membership into this group of particles. The most inherent difficulty lies in their close resemblance to the class of prepositions, and in their tendency to express aspectual meanings.

It is only reasonable therefore, that Talmy (1985) sought to spell out possible ways through which prepositions and satellites may be differentiated. In terms of distribution, it is quite common for satellites and prepositions to occupy adjacent positions within the clause. In terms of phonetic representations, satellites and prepositions usually have the same form. Syntactic tests like omission of adjacent nominals may be useful in separating satellites from prepositions. However, ‘dangling’ prepositions and relative clauses also allow prepositions to occur without the nominals they are supposed to modify. Moreover, some satellites require object nominals and so do prepositions. Talmy (1985) suggested that satellites enter a sister relationship with the main verb i.e. – they are a constituent of the verb phrase. However, not all verb complexes in Talmy’s sense pass all constituency tests of *movement* and *clefting*.

Talmy (1985) is aware of the inherent difficulty in providing necessary and sufficient criteria for membership into this ‘class’. He suggests that syntactically satellites ought to be seen not as a category of particles within their own rights but rather as a group of path particles that perform a certain semantic function in the description of a motion event in the languages that have them.

Based on (a) a comparison of English and Spanish oral narratives of the frog stories and (b) a comparison of how motion events are usually elaborated in novels written in these two languages, Slobin (1996b) claims there is more to Talmy’s (1985) grammatical typology than what a mere description of lexicalisation patterns reveals. Differences in rhetorical styles across ages and narrative genres show that speakers of a satellite language like English differ from speakers of V-languages like Spanish in how they express the particulars of motion events. Although Spanish “narratives, overall, seem to ‘tell same story’ as English accounts” (1996b: 204), English speakers have richer expressive powers supported by a rich manner-verb lexicon, a variety of path

satellites, and the propensity to stack locative phrases to elaborate ground information. In principle, Spanish licenses the use of satellites, of manner verbs, and of source and goal information within one clause. Yet, in their discourse behaviour, the Spaniards hardly ever capitalise on these possibilities. Even when extended narratives are considered, similar patterns of discourse behaviour is consistently observed across ages and genres. Spanish narrators prefer to focus more on the settings in which a motion event is taking place and on the psychology of the protagonist (e.g. scared, surprised) rather the dynamics of motion. Slobin (1996b) argues that what is true of Spanish and English narrators is to a lesser or greater degree also true for other V- and S-languages:

These differences in rhetorical style may apply to satellite-framed and verb-framed languages generally. The English patterns seem to be true of the other satellite-framed languages in our frog-story data – German and Russian – and the Spanish patterns seem to be repeated in the other verb-framed languages – Hebrew and Turkish (Berman and Slobin 1994, Slobin, 1991). In a recent [...] workshop, the patterns reported here seem to appear in frog stories in the following range of languages: satellite-framed languages: Dutch, English, German, Icelandic, Polish, Russian, Serbo-Croatian, Swedish, Walpiri; verb-framed languages: Arabic (Moroccan), French, Hebrew, Italian, Japanese, Portuguese, Spanish, Turkish. (Slobin 1996b: 205)

Closer analysis of Berman and Slobin's data (1994) has demonstrated that the classificatory system these researchers have adopted to identify motion verbs has not been fully explained. Also, they have not provided sufficient contextual data for the reader to glean a definition for the category of 'motion verbs'. This observation was motivated by Berman and Slobin's inclusion of non-motion verbs like *buzz* and *knock* in the English data but not in the Spanish data. I pointed out that two points could be made about these verbs. First, neither Berman and Slobin (1994) nor Slobin (1996b) have dwelled on the reason why verbs that are usually treated as non-motion verbs should be treated as such in the analysis. Second, neither have they entertained the possibility that there might be some important psychological implications to this choice. More specifically, that Spanish narrators have not used verbs like *buzz* or *knock* may prove relevant to issues of conceptualisation, discourse behaviour and issues of learnability.

A survey of various scholarly work on the nature of English motion verbs showed that the grammar of English encourages the use of non-motion verbs with spatial particles. Gruber (1967), Landau and Gleitman (1985), Levin (1993), and Goldberg

(1995, 2000; Bencini and Goldberg 2000) all agree that argument structure configurations in English influence the semantic interpretations of sentential meanings.

Goldberg (1995: 159) has pointed out that discussions of this semantic process have surfaced in the literature under the word choice of *accommodation* (Talmy 1977; Carter 1988; cited in Goldberg 1995) or *coercion* (Croft 1991). Rather than attributing the different senses of main verbs to being inherent in verbs themselves (as Gruber 1967 has argued) or that the intended meaning of main verbs determines their structural configurations (as Levin 1993 has proposed), Goldberg (1995, 2013) and her collaborators (e.g. Bencini and Goldberg 2000) have proposed that word senses are constructed “on the fly” (2013: 454). Verbs will yield a certain interpretation not only because of the context of their use but also because they fit into the requirements of particular constructions. The main point is that basic meanings and extended meanings are readily related semantically:

Coercion is not a purely pragmatic process; rather, it is only licensed by *particular constructions* in the language. That is, coercion is only possible when a construction requires a particular interpretation that is not independently coded by particular lexical items. To the extent that the occurring lexical items can be coerced by the construction into having a different but related interpretation, the entire expression will be judged grammatical. (Goldberg 1995: 159)

While Goldberg’s constructionist approach is useful in investigating why the same verbs tend to occur in different argument structure alternations, it does not address directly the question of how best to classify motion verbs. For instance, the conceptual component Manner does not hold as prominent a place in this theory as it does in Talmy’s (1985) and Slobin’s typologies. Instead, Causation takes centre stage. Consequently, to the extent that the distinction between *basic* meanings and *extended* meanings may be useful for the classification of motion verbs in English, I propose Figure 3.2 as a functional taxonomy for the classification of verbs that are amenable to motional interpretations.²⁷

Starting from the top down in Figure 3.2., first there is the verb category $v[MOTION]$. The superscript $v[X]$ means that the semantic property concerns a verb type and not a noun or a satellite. This procedure allows for the possibility that Path and Manner

²⁷ Note that some verbs will need to be instantiated by what Goldberg (1995) calls the *way*-construction if the intended meaning is to portray an action while tracing a path. For instance, compare *He danced his way out of the room* versus *He danced out of the room*. In the former clause, motion is presented as taking place at a specific location (outside the room) while in the latter, the dancing motion takes the figure out of the room.

components are also expressed by classes other than verbs. In English, for instance, Path is coded onto satellites. However, in Nez Perce (a North American language – discussed in Talmy 1985: 110-111), Manner is coded onto satellites. Nouns and adjectives also encode various motion conceptual components. Compare the adjectives *fast* and *swift* for [MANNER] to the nominals *exit* and *entrance* for [PATH].

Next, the category $\sqrt{\text{MOTION}}$ is divided into two subclasses: path verbs and manner verbs. Each verb is then classed as either [+ BASIC] as in the case of *run* and *leave* or [– BASIC] as in the case of *whistle*, which indicates that in order for this verb to receive a motion interpretation, it must be accompanied by a spatial particle/clause expressing direction. Path and manner verbs in English are also differentiated with reference to the semantic properties [+/- DEICTIC] and [+/- CAUSATION]; the former is a subcategory only of path verbs and the latter is a subcategory of manner verbs only.²⁸

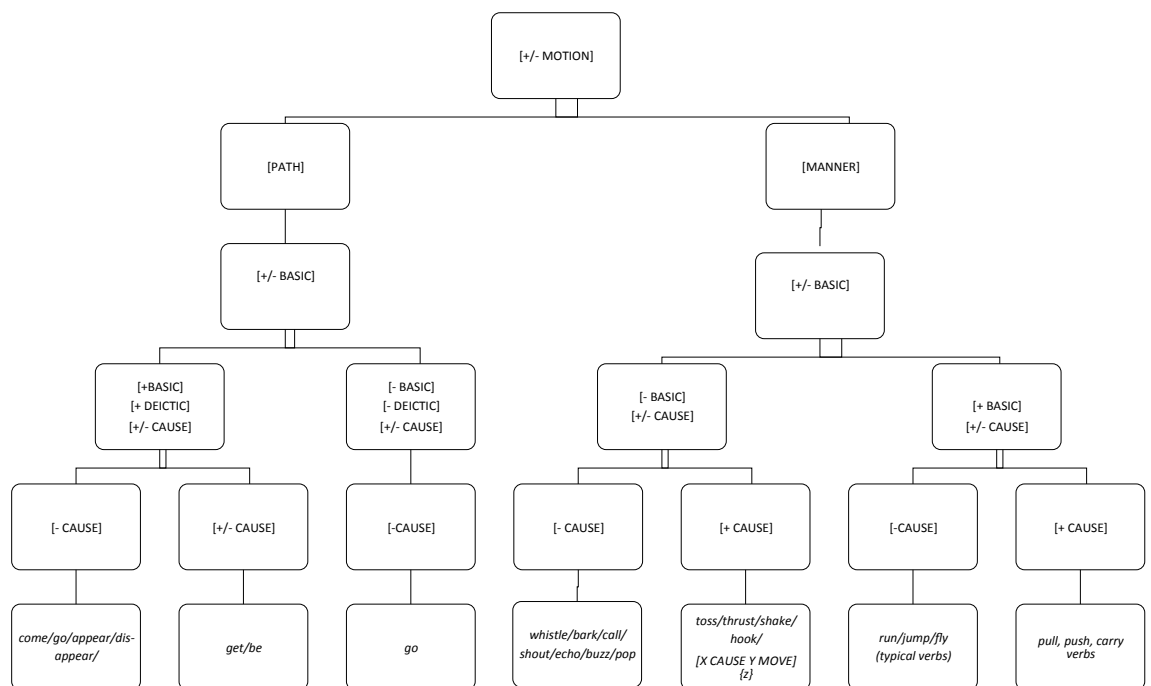


Figure 3.2 A Taxonomy of Motion Verbs in English

²⁸ The literature usually opts for the variable [-/+ caused-motion]. Although in principle the binary values [-/+ causation] means the same thing as [-/+ caused-motion], in this classification the inclusion of the semantic variable [-/+ motion] is redundant and hence why [-/+Path] and not [-/+ Path-motion], or [-/+ Manner] rather than [-/+ Manner-Motion]. The semantic variable [-/+ Motion] is assumed at all levels of the taxonomy.

It is not my intention to argue in favour of semantic-feature approaches to meaning. Specification of properties in terms of [+/-] values mirrors Talmy's componential approach to motion event description and also reflects the demands of the fluid nature of motion verbs in English. To the extent that this point is clear, the classification of verbs take into account the following: [+/- Manner] [+/- Path] [+/- Motion], [+/- Cause], and [+/- Basic].

Seen from this perspective, the proposed approach to motion-event description diverges from neither Talmy's (1985) nor Slobin's (1996b).²⁹ The revised approach simply points out that there is much more to motion-event analysis than mere description of physical motion. As Talmy (1985) points out in the following quotation, concatenated verbs and satellites (and/or directional/locative phrases) are extended from concrete descriptions to the abstract and metaphorical:

In the languages that have it, the conflation pattern being described here applies beyond the expression of single Motion. It extends as well to Motion compounded with mental-event notions, to Motion compounded with other specific material in recurrent semantic complexes [...], and to metaphoric extensions of Motion. (Talmy 1985: 66)

Given that possible argument structures differ from one language type to another, widening the scope of analysis from motion events that involve typical motion verbs to those whose motion meanings may be extended may prove insightful. As Talmy has pointed out, utterances like *I scared him out of his hiding place* (1985: 67) seem so natural in English that it is hard to envisage alternative ways of expression of these meanings (Talmy 1985: 63). Spanish, however, cannot express similar thoughts in this way without additional processing costs.

Talmy's motion event typology and Slobin's TfS hypothesis sparked ample cross-linguistic research in both FLA and SLA, and in my next chapter, I review these studies.

²⁹ Talmy's (1996, 2000) draws a distinction between *fictive* and *factive* motion. I interpret this distinction to be an extension (a cognitivist view) of the syntactic analysis of generative linguists like Gruber (1967) and constructionists like Goldberg (1995). Therefore, I postpone discussing the notions of fictive and factive motion to my general discussion (section 9.2.1).

4. Motion in Grammar and Discourse:

Previous Studies

Do typological contrasts in the expression of motion influence the way motion events are attended to and rendered in discourse? To what extent do L1 speaking habits inhibit the learning of target language norms?

These are the main umbrella questions this thesis engages with. Nevertheless, several researchers have already addressed either one or both questions, and have proposed answers that either corroborate the influence of linguistic categories on L1 and L2 conceptualisation, or conversely, have refuted them. Given the wealth of insights that may be gained from these studies, in this chapter I review various proposals and assess their relative merits and limitations.

I start by reporting on various scholarly work about the behaviour of motion verbs in standard Arabic and its varieties (4.1). Next, I review motion event studies in FLA (4.2) and SLA (4.3). Finally, I discuss limitations to these studies (4.4).

4.1. The Linguistic Conceptualisation of Motion in Arabic: Grammar and Discourse

The domain of Motion is understudied in Arabic language as compared to English, Spanish and other Indo-European languages. There is no obvious reason why this is the case except perhaps that in their landmark volume on motion event description, Berman and Slobin (1994) seem to have used Hebrew to represent Semitic language group, just as they have done with English representing S-type languages and Spanish as representing V-type languages. However, despite the paucity of TfS studies in Arabic, insights about how the domain of motion is lexicalised and rendered in actual usage may be gleaned from studies with lexicographic (e.g. Dana 2013), dialectological (Brustad 2010), and psycholinguistic (von Stutterheim and Nüse 2003) orientations.

As such, in an attempt to demonstrate that neither monolingual Arabic nor English-Arabic bilingual dictionaries provide an accurate picture about how motion verbs are represented in Modern Standard Arabic (MSA), Dana (2013: 3) investigates a large body of data depicting the behaviour of COME verbs and GO verbs in MSA. Dana argues that although the various MSA GO verbs (i.e. *ḡā'a*, *atā*, *ḥaḍara*, *qadima*, and *ta'āla*) and COME verbs (i.e. *ḍahaba*, *maḍā*, *rāha*) are near-synonyms in terms of their core semantic meanings of motion, their collocational and congenial behaviours tend to

differ.³⁰ He concludes that when the larger morphosyntactic frames or constructions hosting the lexical items are taken into consideration, *ḍahaba*, *maḍā*, *rāha*, and *ḡā'a*, *atā*, *ḥaḍara*, *qadima*, and *ta'āla* “have different preferences with regards to the morphosyntactic features they typically associate with” (2013: 77).

A case in point is the contrast between *atā* and *ga'a*. Although these two COME verbs share a number of features, their distributional properties set them apart. An *atā* motion event is more likely to include GOAL, than a *ga'a* motion event is. Furthermore, while *atā* is most likely to be inflected for simple present imperfective, *ga'a*, on the other hand, almost exclusively appears in simple past perfective constructions. Dana (2013) also points out that *atā* and *ga'a* differ to a great extent with respect to a strong association between their subject semantic categories (i.e. HUMAN, NON-HUMAN, etc.) and their semantic propositions (i.e. inclusion of GOAL, SOURCE, MANNER, etc.). With this in mind, Dana (2013: 209) concludes that “each verb highly associates with different motion event construals, which is partly reflected in the different collocational profiles of the two verbs.”

Crucially, the fact that MSA has multiple COME and GO verbs does not suggest that the various instantiations are redundant nor that the lexical system is being ‘extravagant’ (Dana 2013: 217). Rather it suggests that these motion events “are undoubtedly complex and that the different COME and GO verbs in MSA capture different aspects and angles of these basic motion frames” (Dana 2013: 217). One complexity that Dana seems to have in mind is the fact that each verb’s core meaning is extended to express either aspectual or metaphorical meanings in the context of neighbouring lexical constructions. For instance, Dana shows that the verb *ḍahaba* occurs in constructions that not only express physical motion but also non-physical/metaphorical motion that involve both human and non-human agents and “a variety of figurative motion construals each highlighting a particular aspect of the GO motion event” (Dana 2013: 217).³¹ In fact, Dana has gone as far as suggesting that MSA motion verbs “are mostly used metaphorically” (2013: 230). He claims that this fact seems to be in tune with the widespread assumption that MSA is best suited for news broadcasting, intellectual and literary discourse, among others (2013: 230).

³⁰ According to Dana all these verbs share the core meaning COME or GO. However, it is useful to add that *ḥaḍara* has the added semantic notion of ‘attend/be present at’ (e.g. a meeting).

³¹ Dana uses the terminology *non-physical* or *fictive* motion, following Talmy (1996, 2000). I discuss fictive motion further in Chapter 8.

In short, Dana's study shows that motion verbs in Arabic have collocational preferences and this emphasises the point that lexical items must be studied in their respective contexts of use, taking into consideration the various inflected forms rather than idealized word forms (e.g. 3rd-person singular, Perfective). To do otherwise is to fail to appreciate the natural morphosyntactic profile of these verbs and the implications for meaning change and extensions (2013: 250).

Although Dana's (2013) study is insightful, it is limited to MSA. As Dana himself has pointed out, differences between MSA and spoken varieties of Arabic are to be expected given their different geographical settings, historical and colonial backgrounds. Dana points out that in most spoken varieties of Arabic, the verb denoting the COME event usually has one form which tends to be a phonologically modified form of *ġā'a*. For instance, in certain Arabic Gulf dialects, *ġā'a* becomes *yeh*, in Moroccan Arabic *ža*, in Egyptian Arabic *geh*, and in Levantine dialects *iža*. As for GO verbs, most dialects may use the verb *rāh*, while others may employ a different verb such as *mša* (from *maša* 'to walk') in Moroccan Arabic.

Additionally, Dana (2013) points out that although the COME and GO verb lexicon is not as rich in spoken Arabic as is the case for MSA, motion verbs are generally used to express both physical and metaphorical motion events. The evidence comes from a mini-corpus of COME verb uses in Bahraini Arabic. Dana found 80% of the verb uses (out of 174 contextualised uses of *yeh*) depict some form of physical motion as in (34), and the remaining sentences include a more figurative and idiomatic uses of the verb as in (35) (Dana 2013: 230):

(34)

<i>Gāl</i>	<i>šufi</i>	<i>lan</i>	<i>yači</i>	<i>el=ta'lab</i>
say.PF.3M	see.IMPF.2F	Adv	come.PF.3M.CI.2F	ART=fox
'He said "Look! when the fox comes to you..."'				

(35)

<i>Il=fikra</i>	<i>yât</i>	<i>3ala</i>	<i>bāli</i>
ART=idea	come.PF.3M	LOC	mind-CI.1SG.GEN
'The idea came to my mind'			

Differences between MSA and spoken Arabic varieties may also be gleaned from Brustad (2000). In a cross-linguistic study of Moroccan, Egyptian, Syrian, and Kuwaiti Arabic, Brustad points to two unique behavioural profiles of motion verbs that have not been discussed in Dana (2013). The first refers to the abundance of what Brustad calls *compound verb phrases*, and the second relates to the discourse function of *word order*.

Brustad (2000) points out that Moroccan, Egyptian, Syrian, and Kuwaiti Arabic have an abundance of compound verb phrases. Core verbs of motion like *jæ*: ‘come’, *mšæ*: ‘go’, *qa:m* ‘stand up’, *q’ad* ‘sit down’ (etc.) are licensed by the grammar to combine with other verbs within the syntactic boundary of a single clause and are used to add various narrative details to the event being described. For instance, when the verb *mšæ* ‘to go’ combines asyndetically in a clause with another verb of motion or activity, the result is a picture where both the actual motion and its end result are seen as a unified whole rather one act preceding the other:³²

The asyndetic coordination in this case allows the different lexical aspects to colour or contour each other so that the motion and the result are conveyed together as a whole, seen from both perspectives at once. (Brustad 2000: 193)

The following example from Moroccan illustrates his point (Brustad 2000: 194):

- (36) *Mšæ* *šral-hæ*
 go.3M.PF buy.3M.PF.to.her
 ‘He went and bought her’

Another core verb of this group is the verb *tamm* ‘complete’. Brustad argues that this verb is usually used with participles of motion (Harrel 1962: 184, cited in Brustad 2000: 195). It allows the combination of completed or punctual aspect and the continuous action of the following participle. This gives “both a sense of duration of a state or translocation and its completion up to a certain (often implied) point in time” (2000: 195) as these examples show:

- (37) *Tammi:t* *mæši*
 Complete.1M.PF go.1M.PF
 ‘I got going’

In general, in these four spoken Arabic dialects (but not in standard Arabic, it seems), when motion verbs occur in a complex verb phrase structure they tend to play a role in highlighting narrative events or, as Brustad put it, adding “narrative contour” since “they seem [...] to mark the twists and turns of narrative events” (2000: 192).³³

³² Quirk and Greenbaum (1990; cited in Brustad 2000:193) distinguish between syndetic and asyndetic coordination where the former involves explicit coordinating conjunction (e.g. and, or, but) and the latter does not. According to Brustad grammarians like Mitchell and El-hassan dismiss this feature as simple coordination (1994: 113). However, he argues that this does not change the fact that “no other verbs may be coordinated asyndetically in this manner” (2000: 193).

³³ The term *narrative contour* as used in Brustad (2000) is quite vague. I understand it to mean ‘adds the dramatic and aspectual meanings to the event being narrated’.

The second characteristic discussed by Brustad but not Dana (2013) relates to the discourse function of word order in narratives. Brustad (2000) reports that Moroccan, Egyptian, Syrian, and Kuwaiti show preferences in the use of verb-initial (VO) versus noun-initial (SV) clauses.³⁴ When the focus of attention is on the expression of content (i.e. “transactional”) and/or on activities responsible for moving the plot forward, verb-initial sentences are used. However, when the language being used focuses on social relations and personal attitudes (i.e. “interactional”), subject-initial sentences tend to be preferred:

Narratives, which constitute one type of transactional language, often revolve around the actions of a particular group. In such cases, when the discourse topic remains stable, one might expect VS word order to dominate. (Brustad 2000:13)

On this view, sentence structure in these dialects differentiates between ‘topic-prominent’, or given-new information packaging, and ‘event-prominent’, or verb-initial information packaging, behavioural profiles that have not been reported for English and other European languages like Spanish even though the latter uses both SV and VO word-order (Berman and Slobin 1994).

As informative as Brustad’s and Dana’s studies are, they do not address questions relating to role of grammar in linguistic conceptualisation and verbal. Stutterheim and Nüse (2003) have. They compared L1 speakers of English, German, and Algerian Arabic with reference to how similarly or differently these speakers select and organise information for purposes of describing animated event clips. Although motion events are implicated in their analysis, this study focused mainly on Aspect. They elicited data on the aspectual notions **ongoingness** versus **non-ongoingness** of events and how segments of the same events are selected for verbalisation, and found significant similarities between Algerian and English as compared to English and German. Considering possible reasons for these results, the authors argue that while English and Algerian are aspectual languages (i.e. aspect is grammaticalised in these languages), German is not (i.e. Aspect is expressed via adverbs). Stutterheim and Nüse (2003) conclude that (a) L1 linguistic habits play an important role in information selection and organisation and not specific cultural and stylistic preferences, and (b) that

³⁴ الجملة الفعلية *al-jumla al-fi’liya* is the terminology used to refer to ‘verb-initial sentences’. The modifier *al-fi’liya* derives from the Arabic word *al-fi’l* which means the action (Brustad 2000: 329). الجملة الاسمية *al-jumla al-ismiyya*, on the other hand, is the terminology used for noun-initial sentences. The derivation *al-ismiyya* stems from the word noun *ism* ‘name/noun’.

conceptualisation and grammar cannot be divorced one from the other given that a strong association between grammaticalisation and information selection has been identified. Crucially, on the question of whether conceptualisation is linguistic (e.g. Whorf 1956), non-linguistic (Lucy 1992) or linguistic only in so far as taking perspectives on events are concerned, the authors argue that their evidence support the last position –in line with the TfSH:

[T]he view that conceptualization is universal and language-free, has to be rejected. Conceptualization in language production must, or at least in certain respects, be based on language-specific principles... The present findings are compatible with ...the thinking-for-speaking hypothesis ...with the important claim that language-specific knowledge is already crucial at the global, macrostructural level of planning. (Stutterheim and Nüse 2003: 876-7)

To sum up, the investigation of the domain of motion in Arabic is confined to studies that are generally descriptive. These studies do not inform us about how the domain of motion is learnt, how the lexicalisation patterns of this domain in Arabic compares cross-linguistically, whether Arabic learners of other languages face any difficulties when learning other languages, and if so, what may the causes be. Moreover, the Arabic studies just reviewed do not associate themselves either directly with the two frameworks this thesis adopts, namely: Talmy's lexicalisation patterns and Slobin's TfS. While Stutterheim and Nüse (2003) have tackled issues of language and conceptualisation, their main focus was primarily on the conceptualisation of aspect and the conceptualisation of motion emerged only by way of implication. Consequently, in order for us to acquaint ourselves with proposals about how the domain of motion is acquired as a first language and how it is learnt as a second language, we need to appeal to studies whose background and theoretical orientation go beyond lexicography, dialectology, or the study of aspect. It is to this that I now turn.

4.2. The Linguistic Conceptualisation of Motion: First Language Acquisition Research

Within the studies of language and conceptualisation, the idea that language plays an important role in how conceptualisation develops in childhood and how particular universal domains are lexicalised and rendered in discourse, has been gaining momentum over the last three decades. Cognitive typological research in the domains of COLOUR (e.g. Berlin and Kay 1969, Roberson 2005), SPACE (e.g. Lucy 1992, Gumperz and Levinson 1996, Levinson 1997, Bickel 2000), and MOTION (e.g. Talmy 1985, Özçalışkan and Slobin 1999; McNeil 2000; Slobin 1996b, 2000, 2003; Berman and

Slobin 2004; Cifuentes-Férez and Gentner 2006; Hickmann et al. 2009; Naigles et al. 2010; Feiz 2010) has shown that languages vary in the way they lexicalise and talk about these universal domains. These findings have sparked ample research into the linguistic typology of the domain of motion, its impact on the learning of first and second languages. In what follows, I review the studies that are most pertinent to the general orientation of this thesis.

In developmental psychology, Choi (2006), Pulverman, Golinkoff, Hirsh-Pasek and Scootsman (2008), and Göskun, Hirsh-Pasek and Golinkoff (2010) have shown that in the pre-linguistic period (up to the age 14 months) infants attend to the universal categories like SPACE and MOTION in similar ways regardless of the linguistic environment in which they live. However, with the onset and consolidation of linguistic behaviour, children's conceptualisations diverge in ways that are strikingly consistent with the lexicalisation patterns of their native languages.

For instance, according to Göskun et al. (2010: 37) “infants start with language-general non-linguistic constructs that are gradually refined and tuned to the requirements of their native language”. They do so by restructuring “the available non-linguistic spatial constructs with respect to the language being learned” (Göskun et al. 2010: 37). The change from the universal to the relative becomes even more engrained as the child learns more and more about his language: “there is the suggestion that the more language they know, the more attentive they are to native over non-native encodings of these constructs” (Göskun et al. 2010: 38).

Bowerman (1996) came to similar conclusions after she compared how English and Korean children acquire spatial meanings. In a study aimed at testing whether spatial meanings develop after or before non-linguistic development takes place, she found that linguistic categories affect the end product of conceptual development and that this influence starts as early as the age of two. She argues:

Although non-linguistic spatial development clearly paves the way for children to acquire spatial morphemes, learners must attend to the linguistic input to discover the particular way space is organized in their language. (Bowerman 1996: 145)

To illustrate this point, consider the differences in use and conceptualisation between English and Korean is how ‘spontaneous’ versus ‘caused’ motion along a Path is conceptualised. While English children use the particle *out* indiscriminately for ‘getting *out of* a bath’ and ‘taking something *out of* a pan,’ Korean children make a linguistic

distinction since the former is a consequence of spontaneous motion and the latter is a case of caused motion. Most importantly, according to Bowerman (1996), these distinctions are indeed mastered by Korean children from an early age. They would say *kkenayta*, ‘take out of loose container’, for taking ‘a block out of a box’ but not for ‘getting out of the bathtub’. Korean children would say *kkita* ‘fit’ while putting plastic shapes into the holes of a shape box but not when they crept into a small space. According to Bowerman “[t]he Korean children never violated the distinction between spontaneous and caused motion along a Path” (1996: 165-166).

This study attests to the fact that while non-linguistic spatial cognition must in some ways precede the linguistic part, it is the language that has the ultimate say on how these children will view and talk about space (1996: 168). The conclusions Bowerman draws from this study are significant and deserve to be quoted in full:

In closing, let us raise the Whorfian question: does learning the spatial categories of their language influence the way children conceptualize space non-linguistically? In principle, of course, it need not: the principles of categorization needed for language may be relevant ONLY for language and play no other role (as argued by Slobin 1991[...]). That is, non-linguistic spatial cognition may be uniform across-cultures, drawing entirely on language-neutral organizing principles. However, in the research I have presented here, it is striking how quickly and easily children adopted language-specific principles of semantic categorization. There was little evidence that they had strong prelinguistic biases for classifying space differently from the way introduced by their language. This leaves the door open to the possibility that, after all, spatial thought – undeniably one of our most basic cognitive capacities – bears the imprint of language. (Bowerman 1996: 169-170)

Accordingly, developmental studies like Bowerman’s (1996) Bowerman and Choi (2006) and other studies of spatial categorisation (e.g. Levinson 1996, Majid, Bowerman, Kita, Haun, Levinson 2004) have encouraged other researchers to explore the impact of first language learning on the learning of second languages. In my next section, I review some of these studies.

4.3. The Linguistic Conceptualisation of Motion: Second Language Acquisition Research

Issues of L2 competence is closely linked to the question of *ultimate attainment* in an L2. Ultimate attainment, as Schachter (1992) points out, asks whether L2 learners are able to reach a target language knowledge that is comparable to a certain model, and if so, how and, if not, why not. Various hypotheses have been provided (Robinson and

Ellis 2008) with some confirming that ultimate attainment is within the reach of an L2 learner (Cadierno 2004, Cadierno and Ruiz 2006), while others deny that this is ever possible (Cook 1999, 2005).

Accordingly, Alonso (2011) points out that SLA researchers have generally been concerned with the following two issues:

- a. “whether and to what extent adult learners can learn the appropriate TFS habits of a target language”, and
- b. “whether and to what extent the lexicalisation patterns of their L1 influence this learning”. (Alonso 2011: 358)

A first attempt at investigating these TFS matters was led by Navarro and Nicoladis (2005). Given that semantic component of Path is more salient for Spanish speakers than for English speakers, Navarro and Nicoladis (2005) wanted to see how English speakers cope when learning the modes of path lexicalisation in Spanish. More specifically, they wanted to test the predictions that English speakers are bound to focus on Manner description because of their L1 training. They wanted to test the validity of the claim that the process of learning to lexicalise motion in an L2 entails learning to view motion scenes from the perspective that native speakers consider more salient. Using videos as stimuli for eliciting data, they found evidence of mother-tongue interference. This result has motivated the conclusion that learners need to learn to re-conceptualise events in accordance with the target language. They argue, that their study “has given clear evidence of an acquisition process that entails a substantial reformulation of the meaning-in-form language pattern” (Navarro and Nicoladis 2005: 107).

Further support for L1 influence on expression of motion events in the L2 comes from Wu (2010). He used a controlled composition task (i.e. a picture-cued written task) to see how English learners of Chinese (a serial-verb language) come to master the Chinese spatial morphemes *shang* (i.e. end location) and *qi* (source location) which expresses two meanings which in English are expressed by the single morpheme *up*.³⁵ Wu’s results show that L1 English speakers struggle to acquire the Chinese mode of motion-event description. Wu explains this on the ground that (a) Chinese exhibits

³⁵ “The Chinese morpheme *shang* conceptually highlights the region where the moving figure will be located after moving, whereas *qi* highlights the original from which the moving figure came” (Wu 2011: 424).

typological features that are different from English, and, (b) Chinese relies on unfamiliar syntactic features (i.e. directional complements) which are inherently complex. Chinese speakers are sensitive to the distinction between *shang* and *qi* because their L1 has trained them to be so.

Crucially, Wu argues that an English learner of Chinese will need to learn how to “reallocate attentional resources and reclassify the related spatial concepts in their thinking for speaking in order to promptly describe motion events in target-like fashion” (2010: 425). In support of the TfS hypothesis, he adds that this would involve “an implicit process of conceptual learning that is associated with learning another way of thinking-for-speaking” (Wu 2010: 424).

Cadierno (2004) has also investigated the influence of native languages on the learning of motion expression in a second language. The chosen direction of the investigation was also from an S-language (Danish) to a V-language (Spanish). Unlike Navarro and Nicoladis (2005), but similar to Wu 2010, the data was collected by means of written narratives based on Mercer Mayer’s picture book *Frog, where are you?* (1969). Cadierno’s results partially support the TfS hypothesis. On the one hand, TfS was supported in that:

- L2 learners used fewer motion verb types than the Spanish native speakers.
- L2 learners with an intermediate level (but not those with advanced level) showed signs of “satellisation” of the Spanish locative constructions (2004: 19). In this case redundant directional particles were used which Spanish does not require given that path is conflated in the main verb.
- L2 Learners added more ground adjuncts to the motion verb, which is not practised by native Spanish speakers.

On the other hand, L2 learners did not do two things that they would have been expected to do, if L1 transfer/interference was a major factor in L2 acquisition:

- The subjects did not conflate Manner and Motion in the verb in boundary-crossing contexts.
- They did not differ from the native speakers in the amount of attention they paid to movement versus scene settings.

Importantly, Cadierno and Ruiz (2006) set out to test the hypothesis that the more typologically distinct languages are, the more difficult it would be for L2 learners to

reach ultimate attainment – a view expressed by Kellerman’s ‘transfer-to-nowhere principle’ (1995). Cadierno and Ruiz examined the TfS performances of advanced speakers of Spanish whose L1 is Italian and Danish. They did not find any significant support for Kellerman’s (1995) hypothesis. Two possible reasons were given as explanation. First, the influence of L1 is minimal beyond beginning and intermediate levels of L2 learning. Second, although in principle Italian and Danish show opposing typological predispositions in terms of the core component Path, Italian differs from other typical V-languages in that Manner is relatively salient for speakers of this language. This fact is not unusual since Slobin (2004) and other researchers have identified intra-typological variations in terms of both Path (Antuñano 2004) and Manner (Cardini 2010).

Most recently, in a study comparing the performances of 48 L2 learners of Danish, from typologically different backgrounds (12 Spanish, 12 German, and 12 Russian), Cadierno (2010) found evidence of L1 influence. Using picture description tasks as the main method of data collection, Cadierno found that the Spanish learners performed less well than the German and Russian learners in terms of the types of manner constructions they used when describing pictures portraying boundary-crossing events. The Spanish also provided less manner verb types than the German or the Russian learners as compared to the Danish native speakers. The Spanish tended to overuse the Danish verb *gå* to describe all sorts of Motion regardless of Manner saliency.³⁶

Importantly, the results confirmed that the chances of achieving success in motion description seems to depend on the linguistic background of learners. Both the Russian and the German learners’ performances overall were closer to that of the Danish and to each other than the Spanish, both in terms of recognition and production of manner verbs. A slight increase for the Germans over the Russians in terms of manner vocabulary was noted but this did not cover boundary-crossing constructions even though German and Russian differ on the parameter of bounded versus unbounded satellites. Additionally, Cadierno found that Spanish learners have produced partial target language boundary-crossing expressions. These would include an S (Figure) + V (Motion) + Satellite (Path) + PP (Ground), but they lack the all important Manner component.

³⁶ According to Cadierno this might be the outcome of L3 influence (English). However, it is worth remembering that Slobin (1996b) has pointed out that Spanish speakers would characteristically describe manner situations by using the verb ‘go’ indiscriminately for these purposes. So, it is well possible that this overgeneralisation is motivated by L1 TfS anyway.

Therefore, although some results showed that “the Spanish learner group ... has managed to learn a constructional pattern” (Cadierno 2010: 21-22) that is partially similar to the target language, overall, the results point to two main findings. First, inter-typological differences inhibit learning more so than intra-typological differences. Second, the learners’ L1 TfS patterns remain pervasive in L2 expressions of motion (Cadierno 2010: 25) – at least at the low intermediate level that these participants are at (Cadierno 2010: 10).

The above studies seem to suggest that L1 influence on the learning of an L2 is expected at elementary stages of language learning. What remains a moot point, however, is whether this influence is carried over at advanced levels of leaning as well. In order to test this hypothesis, Larrañaga, Treffers-Dallers, Tidball and Ortega (2011) compared verbal data collected from 68 students of Spanish in the UK with data collected from a Spanish corpus. The learners were from three levels of competence. Members of the level 3 group had completed a linguistic placement for six months in Spain. They motivated their research as follows:

We aim to test the hypothesis that L1 transfer plays a role not only at the beginning stages but also in the advanced stages of the L2 acquisition of Spanish. We assume this to be the case in particular for expressions of boundary crossings which involve manner verbs. (Larrañaga et al. 2011: 128)

The results show no significant differences among subjects in the three levels in the way they used manner or path verbs. Many students at all levels experienced difficulty when expressing Manner in a target-like fashion. They found that learners at all levels conflate Manner and Motion in the main verb, leaving the Path to be expressed in an adjunct. When describing an event of a bank robber entering a room (i.e. boundary crossing), they found that only 13.3 per cent of level three subjects did not violate the boundary-crossing constraint (i.e. they used a path verb plus a manner adjunct). No similar incident was recorded for the other two levels. Instead students opted for a manner verb like *correr en* ‘run to’ equating it with the English *run into*. They conclude “even advanced learners of Spanish make use of transfer strategies, a finding which contradicts various studies by Cadierno for Danish learners of Spanish” (Larrañaga et al 2011: 134).

Despite having been for a six-month placement in Spain, advanced learners failed to pick up the knowledge that Spanish speakers do not prefer manner verbs with

directional Path satellites. Larrañaga et al. (2011: 134) explain this on the basis of lack of “negative and positive evidence”. Since Manner is not salient in Spanish, these learners would not have had any positive evidence as to its status in Spanish. Moreover, negative evidence (correction of errors in the classroom) hardly ever concerns the domain of Motion in the teaching of grammar at UK universities. They argue:

The contrasts in the encoding of path and manner in English and Spanish do not belong to the core problems of Spanish grammar. Moreover, when correcting errors teachers generally focus on the well-known problems of Spanish grammar [...] and ignore minor errors that any native speaker of Spanish would classify as ‘sounds funny’. (Larrañaga et al. 2011: 135)

In this context, it seems reasonable to expect that if L1 TfS interferes with L2 learning at advanced levels of competence, it should be reflected in translation practices between typologically different languages. In a recent study, Alonso (2011) found evidence, which suggested to him that this type of influence is not just a matter of ‘on-line’ processing, but a result of what Jarvis (2007) calls *conceptual transfer*. It occurs because the L1 lexicalisation patterns stem from stored conceptual schemas that remain prominent in the speaker’s mind in the act of translating. Notably, he argues that the results:

[...] can be interpreted as an example of **conceptual transfer** since the pattern is stored in the mind as a conceptual schema. This schema is prominent in the informants’ mind due to the L1. *Thus the informant’s translation of the L1 appears to originate from the patterns of thought in Spanish.* Therefore, the differences in the lexicalization pattern ... seem(s) to be instances of the occurrence of the CTH. [Conceptual Theory Hypothesis]. (Alonso 2011: 361-2; my emphasis)

As well as written discourses and translation materials, further support for the influence of L1 on L2 learning is found in speech and gesture (McNeill 2000, Stam 2010). For instance, Stam (2010) studied the speech and gesture of a single Spanish learner of English at different periods –namely in 1997 and again in 2006. Based on data elicited from cartoon narration, she found the learner’s expression of Path remained the same in Spanish but changed in English. However, a noticeable change has been recorded in the use of satellites. The participant has consistently used satellites in 2006, something she did not do in 1997.

Here gestural expression of Path changed in both languages allowing for the possibility of bidirectional influence (Jarvis and Pavlenko 2002). Stam concluded that

“over the nine years, her pattern of thinking for speaking about path in English became more native-like” (2010: 80). However, the subject’s expression of Manner did not change in either language between 1997 and 2006. She continued to express Manner within a Spanish thinking-for-speaking pattern in both Spanish and English (2010: 80). These findings are reported to corroborate those of Choi and Lantolf (2008, cited in Stam 2010: 81) that “showed that L2 learners had a shift to the L2 thinking-for-speaking for the expression of path, but not for manner” (2010: 81). Although this study is limited in that it is based on a single participant (Stam 2010: 82), Stam concluded that “thinking for speaking is not static” and “can change over time” with an important caveat: “not all aspects of thinking for speaking change equally” since success was noted in the case of Path but not Manner (2010: 82).

4.4. Summary and Discussion

The main focus of this thesis is the question of to what extent universal semantic domains like that of Motion is conceptualised and talked about differently in typologically different languages. In order to inform ourselves with the current state of knowledge about this domain and the various questions associated with it, in this chapter I have reviewed studies of the domain of Motion both in Arabic and Indo-European languages.

The primary objective of this chapter was to review studies that have direct bearings on the question of whether the grammatical system of a language impacts the verbal behaviour of its native speakers when they communicate in their L1 and in their L2. While it has been possible to arrive at a fairly comprehensive picture about these issues with reference to Indo-European languages, it has not been possible to do so for Arabic. Except perhaps for the study of von Stutterheim and Nüse (2003), I did not come across any study that adopted Talmy’s (1985) framework, nor addressed the theoretical issues of the role of language in conceptualisation. Dana (2013) adhered to a constructional/cognitive linguistic model in that he analysed language usage taking into consideration the full lexical profiles of the COME and GO verbs of MSA. However, as Dana himself points out, his approach was limited in that it focused only on “motion verbs that are ‘basic’ in the sense that they do not encode information about the path of motion, the manner of motion, or other semantic prosodic information” (2013: 228). Dana seems to depart from Talmy’s approach especially with regards to conflation patterns of the semantic component of

Path and Motion. Dana (2013) seems to associate the encoding of Path only with overt spatial prepositions. This goes contra Talmy's (1985, 2000) frameworks where Path and Motion are conflated in main verbs including those expressing the verbal concepts COME and GO.

Brustad's (2000) work on motion event in spoken varieties of Arabic is instructive and has raised specific questions for the study of Tunisian Arabic to be undertaken in my next chapter. For instance, would TA speakers capitalise on compound verb phrases and the division of labour between SV and VO word-order in narrating motion events.

The survey of the studies investigating motion event in Indo-European languages projected an inconsistent picture especially with regards to whether L1 conceptualisation inhibit the learning of a typologically different L2 at advanced levels of L2 learning. However, on closer examination, the lack of consensus between the studies surveyed above may be explained as follows:

First, there is definitional issues especially as they relate to notions of 'competence'. While some studies included what has been described as 'advanced' level learners (e.g. Larrañaga et al. 2011), there is a sense in which this label should be used with caution. In other words, how advanced were these learners? How does their competence compare to that of Spanish-English bilingual speakers, a Spanish-English translator, or a Spanish teacher of English with an explicit knowledge of the target language grammar and culture? We do not know. For instance, Wu's (2010: 427) participants were "sampled from either third- or fourth-year Chinese language classes." These would have had approximately 330 hours of instruction and were subsequently pronounced "advanced" learners of Chinese (2010: 427). Similarly, Eikert (2010: 132) also deemed their participants 'advanced' based on in-house placement tests and the fact that participants have lived in the US "for more than two years and spoke English daily" (2010: 132). However, they have also introduced these learners as being enrolled "in a language program in New York city" casting doubt on the degree of advancedness if these learners are still seeking linguistic development in the target language. Consequently, there is a sense in which the term 'advancedness' remains broad enough to apply to learners who had as little exposure to a target language as Wu's (2010) and Eikert (2010) participants had.

The second factor that may explain the lack of consensus in SLA concerns the methodologies adopted, both in terms of the material used to elicit data and the way it is

collected.³⁷ For instance, while Cadierno (2004) used Mayer's frog story, Larrañaga et al. (2011: 129) used Plauen's (1959/1996) story of a bank robber, Navarro and Nicoladis (2005) used films, Wu (2010) uses static pictures. As for the means by which the data was collected, Cadierno (2004) asked her subjects to write down their version of the story, Larrañaga et al. (2011) recorded the responses orally and then transcribed them, and Wu (2010) used a recognition task. Consequently, it is possible that inconsistencies in defining the role of L1 in L2 are motivated by methodological differences.

A third factor that may explain the lack of convergence in SLA results relates to priming L1 conceptualisation in the experimental task. According to Dulay, Burt and Krashen (1982) translation tasks call forth L1 linguistic knowledge more than what normally would happen when a second language speaker is engaged in an everyday conversation. Consequently, transfer results obtained via translation methods do not have maximum explanatory power:

Translation tasks artificially increase the L2 learner's reliance on first language structures, masking processes the learner otherwise uses for natural communication. For this reason, studies that rely exclusively on translation and strict linguistic manipulation to elicit language cannot be used validly in formulating accounts of L2 learners' acquisition of communicative skills. (Dulay et al. 1982: 110)

A fourth factor relates to the types of languages being compared. With the exception of Chinese, there seems to be an overwhelming tendency to investigate European languages (i.e. English, Danish as S-languages Versus Spanish and French as V-languages). This makes generalisation quite difficult especially when cross-linguistic studies in FLA with a Neo-Whorfian orientation shows that there are inter- as well intra-linguistic variations in the way languages treat the cognitive domain MOTION.

A fifth and perhaps most important factor relates to the direction of transfer. According to Antonijević and Berthaud (2009), and to a certain degree Larrañaga et al. (2011: 134), the lexicalisation pattern of S-languages place their speakers in more favourable positions when learning V-languages than the other way around. Larrañaga et al. (2011) studied the linguistic performance of L1 French when learning L2 English and *vice versa* and found differences in the rate of success in expressing motion events

³⁷ A valid point (Melanie Green and Jeanine Treffers-Daller; personal communication) is that different methodologies are needed in order to widen our understanding of research topics. Equally, I suggest that uniformity between methodological approaches is a necessary spring board for topics that are as under researched as the domain of motion in SLA is (Han and Cadierno 2010).

in a target-like way. English learners having more success in learning the French ways of talking about motion events than the French have in learning the English ways. This has been explained on the basis that a manner-framed language like English is much more flexible in the type of syntactic frames it allows its native speakers. Path verbs, however, are not flexible and French speakers made many more errors trying to use English as if it was path-framed. This seems to suggest that studies based on S-language speakers learning a verb-framed language are not representative of what happens in language learning more generally.

In brief, one can say that a lack of unified methodological procedure may explain why research on the role of L1 in L2 is far from conclusive. In face of these inconsistencies, the remainder of this thesis aims to bring fresh evidence to the debate.

5. Study 1: Thinking-for-Tunisian Arabic

Speakers of typologically different languages vary in their linguistic construals of events, across a wide range of situations of language use. There seem to be quite clear differences in habitual ways of talking about the sorts of events that all human beings experience and care about. (Slobin 2003: 172)

5.1. Background

This chapter investigates the standing of Tunisian Arabic (TA) with respect to Talmy's binary typology of S- and V-framed languages (1985, 2000). TA is predicted to be a verb-framed language, given that it belongs to the Semitic language family. Despite this, one can provide several reasons why generalisation based on family types is not to be taken for granted. First, language family does not determine typological status. For instance, while Spanish and English belong to the Indo-European language family, the former is classed as a typical V-framed language and the latter as a typical S-language (Talmy 1985, Slobin 1996). Second, the bilateral dichotomy between S- and V-framed languages has been questioned. According to Zlatev (1997) and Zlatev and Yangklang (2004), for instance, serial verb languages fall outside the binary classification. In this type of language both Manner and Path information are equally coded in a series of syntactically equal verbs, as the following example from Thai shows:

- (38) *Chán dɔɔn khâam thanǎn khâw paj naj sǎan*
 I walk cross road enter go in park
 'I walked across the road and into the park.'
 (Zlatev and Yangklang 2004: 160)

This example shows a case of verb serialisation where four different motion verbs are used to describe the same motion event. These are the manner verb *dɔɔn* 'walk', the (non-deictic) path verbs *khâam* 'cross' and *khâw* 'enter', and the deictic verb *paj* 'go'. Serial-verb languages are not rare and the fact that they are widespread in a variety of language family types makes it imperative to test languages for their own merit rather than the family they belong to.

A typological assessment of individual languages is also needed because intra-typological variations between languages have been identified. In this case, languages behave according to a scale of prototypicality with some languages behaving more typically than other languages within the same group with regard to the expression of

Path and Manner. For instance, according to Cardini (2010), although Italian is a V-language, its description of Manner shows more affinities with a language like English than French does. In this context, although prototypical V-languages are said to license the use of manner verbs as the main verb of a clause only when there is no boundary-crossing (Slobin 2004: 225), Cardini (2010) argues that it is commonplace for Italians to say sentences such as *corse fuori di casa* ‘s/he ran out of the house’ instead of *uscì di casa correndo* ‘S/he exited the house running’, or *Salta in macchina!* ‘jump into the car!’, instead of *entra in macchina con un salto!* ‘Enter the car with a jump!’ Similarly, according to Iraide Ibarretxe-Antuñano (2004, 2009), although Basque is a verb-framed language, it shows more affinities with English in the elaboration of trajectories (i.e. The complete-path hypothesis) than a typical V-language like Spanish (2004: 89) does.³⁸ These variations are important not only because they cast doubt on a rigid, binary motion-event typology, but also because they carry serious implications for issues of conceptualisation and communication:

I argue that Basque is a verb-framed language, and as such it shows a tendency to encode Path in the verb and to express Manner in a satellite. However, there are also specific characteristics particular to Basque and, therefore crucial to thinking-for-speaking in this language. (Ibarretxe-Antuñano 2004: 89)

Consequently, all evidence points to the following:

- a. It is possible that speakers within the same typological group treat aspects of motion events differently.
- b. It is equally possible that intra-typological variations at a linguistic level mirror variations of a conceptual kind.

With the above factors in mind, first-hand investigations of the lexicalisation patterns of motion events in individual languages become imperative. Since the literature is devoid of any study of motion events in TA, in this chapter I conduct a discourse-analytic experiment (a) to determine whether Tunisian Arabic is a V-framed or an S-framed language and (b) to identify the TfS habits of its speakers.³⁹

³⁸ This refers to the tendency of Basque speakers “to express linguistically, in the same clause, both the source and the goal of a translational motion” (Ibarretxe-Antuñano 2004: 109-110). Iraide Ibarretxe-Antuñano further argues that “[w]ith regard to Path elaboration, Basque seems to describe and use Path quite differently from other, prototypical, verb-framed languages. The use of Ground adjuncts with verbs of Motion is high, and the number of static descriptions of the physical setting is small” (2004: 109)

³⁹ By TfS habits I mean the linguistic expressions that are used regularly to describe the semantic components of Motion its Manner, Path, and Cause. I also mean TfS habits to be habits of verbal expressions that encourages the selection of certain aspects of an event rather than another.

In section 5.4, I explain the main methodology. In section 5.5, I present the main results of this experiment. Evidence suggests that Tunisian Arabic lexicalises the core semantic component ‘Path’ in the main verb. It also shows that the use of manner verbs obeys the boundary-crossing principle. Based on these two factors, I tentatively conclude that TA is, indeed, a V-framed language. However, beyond this general conclusion, other evidence suggests that TA is best thought of as an atypical member of its group.

5.2. Tunisian Arabic

Tunisian Arabic (TA) is a language spoken in Tunisia – a North African country. Tunisian is classified as a dialect of Arabic, a Semitic language. According to Versteegh (1997) the similarity between the Semitic languages is less controversial than that between the Indo-European languages. Semitic languages tend to share a number of common features that clearly mark them as Semitic.⁴⁰ However, as Versteegh (1997: 11) claims, they are also characterised by individual variations largely due to historical factors (e.g. migration, the influence of other languages which co-existed with it, and those of the colonial powers).⁴¹

The linguistic situation in Tunisia has been described by Versteegh as diglossia. This refers to a linguistic situation where two or more languages co-exist, usually with a division of labour (Ferguson 1959). In Tunisia, Standard Arabic and French are prestige languages used in education, the media, and bureaucracy, but TA is the language spoken in informal everyday situations.

5.3. Objectives and Hypotheses

In this study, I seek two types of information. First, I want to collect colloquial data so that I can assess whether TA is a V-language. Here I seek linguistic evidence of how people talk about figures moving in space. Identifying where in the clause the semantic component Path is lexicalised determines the typological status of TA. Analysing TA speakers’ verbal behaviour beyond the clause level (in the Berman and Slobin 1994 sense) provides information about (a) which aspects of motion events are habitually attended to in discourse, and (b) the strategies TA speakers use in motion-event description.

⁴⁰ Versteegh (1997: 11) discusses four features: triradicalism, presence of emphatic/glottalised consonants, special relationship between vowels and consonants, paratactic constructions, a verbal system with a prefix and suffix conjugation and a large number of lexical correspondances.

⁴¹ Tunisian Arabic has been subject to Berber and French language influences (Versteegh 1997: 198).

Since Tunisian Arabic is a Semitic language, it is expected to show characteristics of a V-language. This means that I expect Tunisians:

- Not to use extra particles to express direction of movement.⁴² Instead, the main verb carries the necessary information for speakers to infer information about the trajectory.
- Concerning Manner information, I expect TA to have a limited lexicon of manner verbs. In line with V-languages, manner verbs should not be rich in meaning. Types and quality of manner verbs should be quite basic and I expect them not to be used when crossing a boundary.
- As far as the elaboration of ground elements, I expect TA to limit ground descriptions to one ground per verb.
- I also expect narrators to focus on setting scenes rather than on describing movements.
- In line with Slobin's predictions for V-languages, I do not expect TA speakers to compensate for lack of manner verbs and clause-compacting strategies by adding more clauses and/or word classes to describe Manner and Path information.

The opposite scenario is also possible:

- Since more and more studies claim that Verb-languages show morpho-syntactic preferences (e.g. Ibarretxe-Antuñano 2004 and 2009 for Basque; Wilkins 2004 for Irerrante; Cardini 2010 for Italian; Feiz 2010 for Persian), TA may also show some deviations from the V-framed language norm.⁴³ As for Irerrante speakers, travelling in space should form a big part of Tunisian Arabic culture (crossing deserts for purposes of commerce or hunting for food etc.).
- It is also possible that TA, like Persian, may deviate from other V-languages by having more path satellites than a typical V-language (2010: 405-8) or it may utilise light-verb constructions to compensate for lack of manner verbs,

⁴² It is generally assumed that Path is habitually attended to in V-framing languages. The issue as the analysis shows is in whether path satellites are used along side other verbs to express the direction that path of motion is following (e.g. climb versus climb up/down).

⁴³ Or as Green and Treffers-Daller (personal communication) call them "highly frequent default patterns".

as when ‘emerge/come.out’ is expressed in Persian as *dar aamadan* ‘door coming’ and ‘running away’ as *dar raftan* ‘door going’ (2010: 410).⁴⁴

- Or, like Basque, TA might capitalise on *the complete path construction* so that both source and goal of motion are expressed with a single verb (Ibarretxe-Antuñano 2004).

5.4. Methodology

5.4.1. Participants

The participants in this experiment are Tunisian adults. These divide into eight males and five females, aged between 17 and 57. Subjects come from two regions. One is Sidi Bouzid, a city in the middle of Tunisia. The other is Zeramdine, a coastal village. Due to geographical variations, I expect there to be some minor dialect lexical variations and consequently I point these out in my analysis.

Seven of the participants have reached an educational level of no more than the fourth year of secondary school. Two have reached the fifth level of secondary school, two Baccalaureate level, and one has achieved a pharmaceutical degree. The variety of educational background in the subjects ensures that the narrative style is not influenced by intellectual/academic background. This step is motivated by Slobin’s (1996b) claims that narrative style/s tend to differ from one participant to another. Consequently, I needed to rule out the possibility that event granularity and ground descriptions are not influenced by the educational level of subjects. I ensured that these participants cannot speak any English (or are at least not active users of English) and hence do not jeopardise the validity of the comparison with English-speaking Tunisian participants in experiment two, Chapter 6.

⁴⁴ Also called *complex predicates*; these are constructions consisting of a light verb and a non-verbal element such as *have a rest, give a sigh, take a walk, take a plunge* (Goldberg 1996).

Table 5.1: Tunisian Participants

ID	Age	Dialects spoken in Zermadine (Z) or Sidi Bouzid (S/B)
[A-T-M]	44	Z
[B-T-M]	41	Z
[C-T-F]	41	Z
[D-T-M]	47	Z
[E-T-M]	51	Z
[F-T-M]	37	Z
[H-T-F]	17	Z
[G-T-M]	43	Z
[I-T-M]	39	Z
[J-T-F]	27	S/B
[K-T-M]	57	Z
[L-T-F]	37	S/B
[M-T-F]	37	S/B

5.4.2. Material

In line with the research tradition in TFS studies (e.g. Berman and Slobin 1994), the storybook *Frog, where are you?* by Mercer Mayer (1969) has been used in this study as an elicitation tool.⁴⁵ Several researchers (Berman and Slobin 1994, Zlatev and Yangklang 2004) have confirmed the usefulness of this story for eliciting motion event descriptions. However, recent Neo-Whorfian literature has raised concerns that picture books and static images are less effective testing material for motion events than dynamic videos (Papafragou et al. 2002, Pavlenko and Jarvis 2002, Pourcel 2005).⁴⁶ According to this view, animated clips and dynamic films are more appropriate since they reflect real-life events executed in the most natural way. Picture books on the other hand, are static and artificial in which the story-teller laboriously attempts to inject some life into an essentially lifeless story. For instance according to Jarvis “using films rather than pictures [...] has the advantage of making the story-telling task less artificial and more similar to spontaneous narratives” (Pavlenko and Jarvis 2002: 195).

While this may be true, there are certainly advantages in putting a little strain on the storyteller. To inject life into a lifeless picture story, the participant construes events and activities based on his/her general knowledge, experience, and his/her conceptualisation. In doing this, the linguistic (i.e. what language licenses) and the experiential (i.e.

⁴⁵ I also use this story to elicit data from native speakers of English in Study 2 (Chapter 6) and second language speakers of English in Study 3 (Chapter 7).

⁴⁶ Studies that interpret the Whorfian thesis to be solely concerned with the effects of language on non-linguistic thinking tend to use event triads. Event triads are supposed to test conceptualisation without recourse to the medium of language (e.g. Papafragou et al. 2002, Loucks and Pederson 2011).

general knowledge) come together. For instance, picture 14 depicts an owl with spread-out wings perching at the opening of a hole in a tree. There is also a boy lying down, flat on his back, on the ground. For purposes of motion-event description, it is interesting to see how the story-teller construes the events that led to the fall of the boy from the tree. The picture itself does not explicitly tell this story. It is the human categoriser, based on his/her general knowledge, who works out the cause-and-effect relationship between the owl popping out of the hole in the tree and the boy being “bammed down”. Notice that I have used the expression *bammed down* here – an expression which has been uttered by Berman and Slobin’s (1994) English subjects and not by their Spanish subjects. The question, therefore, is whether in framing this event, for instance, the subjects’ habitual ways of thinking for speaking will guide their attention to focusing on Manner, Path, scene-setting, or any other component of an event, and if so, what linguistic means do they use to do it. Do they, for instance, say the boy *fell down/fell off the tree/was scared off/ was bammed down* — expressions typically uttered by Berman and Slobin’s (1994) English narrators? Alternatively, do they use expressions that are devoid of path satellites, with very little manner information as is familiar in typical verb-framed languages?

According to the Thinking-for-Speaking Hypothesis (TfSH) regular use of specific linguistic patterns plays a big part in this choice. Consequently, static pictures have been profitably used in a wide range of languages to provide answers to these and other questions related to the influence of typological contrasts on thinking for speaking norms.

5.4.3. Procedure

Participants were tested in coffee shops or in their own homes. Ethical procedures in accordance with University of Sussex guidelines have been followed. Forms of consent (see Appendix 4) were read and explained to participants, and signatures were obtained for the experiments. Where needed and where possible, I have interjected during the subjects’ narratives by asking questions aimed at drawing the speaker’s attention to specific scenes or motion activities in order to elicit optimal responses. By optimal responses I mean utterances that describe Motion (either Manner, Path or both). When subjects failed to provide an optimal response, attention is directed to a different scene so that no tension is created and subjects remained relaxed. I have not analysed personal

digressions, comments and queries relating to the task (e.g. *What do you call this?/ Shall I start?*).

Although the unfolding of the events in the story follows a European tradition (from right to left and not left to right as is commonplace for Arabic readers), my subjects did not generally show signs of unease. This is probably because almost all the subjects have had French classes at primary school. Consequently, this contrast (mentioned in Slobin and Berman 1994: 21) should not be seen as a variable with any serious cognitive or discourse consequence for this particular experiment.

5.4.4. Transcribing, Glossing, and Coding of Data

i. Transcription

The data is composed of 13 individual narratives of the frog story. Each session was audio-recorded. Transcription is first done in Standard Arabic orthography and then converted into phonemic transcription, converted into a literal English translation, and then into a rendition of the utterance in an English colloquial style.⁴⁷ The presentation of phonemic transcription and literal translations is from left to right as in European transcription tradition although the opposite is true in Standard Arabic.

Motion verbs are translated into their Latin-derived equivalents to preserve their mono-lexemic status as in language of origin. For instance, *yatlá* and *yahbit* are translated into the Latinate ‘ascend’ and ‘descend’ respectively rather than the colloquial English verbs *climb up* and *climb down*. Dialect differences are pointed out only when judged to be of value to the analysis. Thus, *S/B* stands for a dialect from the city of Sidi-Bouزيد and *Z* stands for that spoken in the village of Zeramdine.

The following conventions are also followed:

- Curly brackets indicate false starts or repairs:
e.g. {they can’t get} he can’t get up.
- A dash (-) = a short pause
- Three dots (...) (or more if needed) = a long pause

ii. Glossing conventions

- All examples from the transcripts (TA) are given in *italics*, e.g.: *jrana*
- Glosses are given in single quotes, e.g: *jrana* ‘frog’

⁴⁷ Arabic transcriptions are not included here for ease of readability. Translations have been checked for acceptability by two native speakers of English.

- A single word in TA texts can sometimes amount to a whole clause in English. For instance, the utterance *ṭaḥ* carries several grammatical morphemes. It indicates that the agent doing the falling is male (M), third-person singular (3). It also indicates that the action has taken place in the perfective aspect (PF). Expressing these grammatical notions therefore should take the following format:

ṭaḥ
fall.PF.3M

- Elements in the gloss which are expressed by a single lexical item in the original are separated in the gloss by a full stop, for instance the verb *ṭayyah* expresses caused-motion and is glossed as ‘make.fall’.

iii. Coding

Slobin and Berman (1994) suggest that the clause should be the minimum unit of analysis. This is defined by the authors as “any unit containing a unified predication, whether in the form of a verb or adjective” (1994: 26). In this sense, *running through the woods, they were angry, want to climb the tree, started running*, and so on, all are clauses. This analysis of clauses, according to the authors, makes it possible to assess how many predications are packed together in a single event in the different narratives. Each clause in the transcript is preceded by two ID codes one for the clause and one for the subject who made the utterance. The prefix of the ID consists of four elements and specifies the subject ID (A, B, C, etc.), nationality, age, and gender. The data portion of the ID specifies the utterance number [16] and the picture s/he is describing [02]:

- Subject ID:
[A-T-40-M] means participant A, Tunisian, aged 40, and male.
- Data ID:
[16-02] means the subject is talking about picture 2 and the text-line is number 16 in that text.
- The Total ID:
[M-T-40-M/16-02] from left to right means that subject is identified as [M], Tunisian, aged 40 and male. The utterance is number 16 in the total utterances produced and is describing events in picture 2 of the frog story.

Moreover, following Berman and Slobin’s (1994) coding tradition, curly brackets have been used in texts to mark subordinate clauses and verbless clauses in an utterance. These are then moved down to occupy their own text lines and get an ID codes of their own. The following example illustrates this. The manner gerund *yitkarbis* ‘roll’ is

marked for imperfective (IMPF). The gerund does not get coded with the perfective verb *t'adda* but gets its own code later:

- (39) [F-T-40-M]
T3adda huwa {yitkarbis} [20-58]
 pass.PF.3M him {roll.IMPF.3M}
 'He went tumbling down'

{Yitkarbis} [20-59]
 roll.IMPF.3M
 '(went) Tumbling down'

Having said this, when there are longer stretches, these ID codes would show within one single bracket joined by the symbol + as in: [F-T-40-M/20-58+59].

iv. Analysis

As discussed in Chapter 3, there is no consensus on what counts as a motion verb. However, following the tradition in this research paradigm, in my analysis I have included both translocative (e.g. *climb*) and locative (e.g. *sit*) verbs whether self-propelled or caused. Equally, verbs denoting motion but lacking a specific goal like 'going uphill' are also included despite the fact that some researchers have argued against them (e.g. Cardini 2000). To this extent, any form of expression that is habitually expressed by a verb-complex in English is a potential area of linguistic and conceptual import to this thesis. In this sense, if 'waking up' from sleep is expressed in English by a non-bare verb complex but in TA by a bare verb only, then this change-of-state verb is included in my analysis. One reason motivating this decision is that in TA for instance, an equivalent of the compound verb 'wake-up' is *thar* or *qa:m*. When these verbs are used in a different context from that of 'sleep' they simply mean 'getting up/rising' as in 'he *stands up*'. As discussed in Chapter 2, Talmy (1985), Goldberg (1995), Levin (2003), Tyler and Evans (2003) all observe that path satellites in English express both physical motion meanings as well non-physical spatial meanings. While the proposal that verbs in English tend to encode motion meanings either inherently or by way of extension, it is not known yet whether a change in the argument structure of TA verbs would yield a change in meaning as is purported for English (section 3.3).

Consequently, this research approaches data analysis with an open mind. It does not draw a line between basic and extended meanings and neither does it draw a line between the physical and abstract/metaphorical aspects of motion event descriptions. This approach, in my opinion, is more consonant with current trends in cognitive

linguistics where the abstract and the physical intermingle (Johnson and Lakoff 1980, Evans and Green 2006). Crucially, as the analysis will show, any attempt to exclude the basic from the extended, or the abstract from the metaphorical, is to severely hamper our understanding of cross-linguistic differences and the potential difficulties L2 learners face when learning typologically different languages.

5.5. Results

5.5.1. Path verbs

The collected data from the 13 narratives show that path information is lexicalised in the main verb. As predicted for V-languages, motion verbs expressing acts of ‘entering’ and ‘exiting’ bounded spaces tend to be mono-lexemic. All 13 subjects used either *d-h-l* ‘enter’ or *h-r-j/ t-l-3* ‘exit’ at least once. These are general path verbs that do not incorporate any manner information. Similarly, for verbs of ‘upward’ and ‘downward’ motion, all subjects have consistently used the verb *t-l-3* ‘ascend’ to express an ascending motion; *h-b-t* ‘descend’ for acts of descending motion and *t-h* to describe scenes of ‘falling’. Table 5.2 summarises these results:

Table 5.2: Path Verbs in Tunisian Narratives

Root form	3rd -person singular	English gloss
<i>j-ʔ</i>	<i>j-a-ʔ</i>	‘come’
<i>d-h-l</i>	<i>d-h-a-l</i>	‘enter’
<i>h-r-j</i>	<i>h-r-a-j</i>	‘exit’
<i>t-l-3-</i>	<i>t-l-a-3-</i>	‘exit’
<i>h-b-t</i>	<i>h-b-a-t</i>	‘descend’
<i>t-b-b- 3</i>	<i>t-e-b-b-a- 3</i>	‘follow’
<i>r-w-h</i>	<i>r-a-w-w-a-h</i>	‘return home’
<i>d-h-r</i>	<i>dhor</i>	‘appear’
<i>r-j-3</i>	<i>r-j-a-3</i>	‘go back’
<i>š-qq</i>	<i>š-a-qq</i>	‘traverse’
<i>q-š</i>	<i>q-a-š</i>	‘cross’
<i>d-r</i>	<i>d-a-r</i>	‘circle/go around’
<i>l-h-q</i>	<i>l-h-a-q</i>	‘join (someone)’
<i>h-l-t</i>	<i>h-l-a-t</i>	‘join (someone)’
<i>w-š-l</i>	<i>w-š-i-ll</i>	‘arrive/reach’
<i>b-3-d</i>	<i>b-3-i-d</i>	‘distance.oneself’ (from someone)
<i>q-m</i> <i>t-r (Z)</i> <i>n-d (Z)</i> <i>f-q</i>	<i>qa:m</i> <i>na: d</i> <i>ta:r</i> <i>fəeq</i>	‘get.up’ ‘get.up’ (physically), ‘wake.up’ (from sleep) ‘wake.up’ (from sleep)

Column 1 shows the root form of the verb. Roots in TA are made out of consonants only. The inclusion of vowels either medially or peripherally encodes grammatical meanings of aspect, gender, person, causation. Consequently, the inclusion of the sound

[a] medially into the root form *d-h-l* (as in column 2) yields *dhal* and signals information about aspect (perfective), gender (male) and person (third-person singular). (Z) is an abbreviation of Zeramdine and indicates that this verb is unique to the dialect spoken in that town.

Table 5.1 shows a total stock of 20 path verbs elicited from the TA frog stories. It shows that all other motion activities depicting general direction of movement in space (e.g. ‘returning’, ‘crossing’, ‘arriving’, ‘reaching a destination’, ‘catching up with someone’) have been consistently described with mono-lexemic verbs. All these verbs encode path/direction information but say little or nothing about the manner in which the act has taken place. While the above set of verbs confirms that TA speakers use mono-lexemic path verbs, some instances have been recorded which raise the possibility that TA may not be a typical V-language. On several occasions, path verbs have been used in conjunction with locative particles which could well be likened to the satellites known for S-languages. For instance, some subjects have used the path verbs *h-b-ʔ* ‘descend’, *ʔ-l-ʔ* ‘ascend/climb’ with locative prepositions like *luʔa* ‘down’ and *l=fuq* ‘up’ respectively, as in the following examples:

- (40) [F-T-37-M/46-06]
ʔa h si l=kelb miššubbæk luʔa
 fall.PF.3M Mr ART=dog from=ART>window to=down
 ‘Mr Dog fell with bottle out of the window down (into/onto...)’
- (41) [F-T-37-M/ 57+58-07]
Lu.wlayyid hbaʔ b=sabbaʔ bu:h
 ART=boy descend.PF.3M with=shoe dad.POSS.3M
 ‘The boy **went down** with his father’s shoes {he **climbed** down}.’
- (42) [F-37-M/130-18]
Ki=wiqfīt i-šʔi:ba l=fu:q
 when=stand.PF.3F ART=deer to=upward
 ‘when the deer stood up(ward)’

Perhaps even more interesting is that the locative preposition *l=fu:q* ‘to=up’ was also used with Manner verbs elaborating in this way the direction the jumping activity followed:

(43) [M-57-T-F/50+51-10]

Yna-ğğiz *l=fu:q* *bès* *yhabbaṭha*
 3M.jump.IMPF to=upward in.order.to 3M.make.descend.IMPF=3F.PR
 ‘He jumps up to bring it [the hive] down’

From the point of view of this analysis, it is interesting to see that locative expressions are used productively with both core path verbs and manner verbs as well. In this sense, the locative preposition *l=fu:q* ‘to.upward’ is used with both *nağğiz* ‘jump’ indicating Manner of Motion and *wquf* ‘stand’ indicating a static location.⁴⁸ In addition, the locative expression *luṭa* ‘down’ is used with both the verb *ta:h* ‘fall’, and *hbaṭ* ‘descend’. This preliminary remark is supported by introspective data.⁴⁹ For instance, as well as the locative preposition *l=fu:q* ‘up’ the verb *nağğiz* ‘jump’ may combine with *l=barra* ‘to-outside’, *l=déhil* ‘to-inside’, or *luṭa* ‘down/ward’.⁵⁰ The use of these locative expressions seems to add more information about the jumping trajectory — namely whether the direction of the jump is horizontal, vertical, from inside a bounded space heading out or the other way round. In this sense, the use of these locative particles provides a much-needed semantic nuance to motion event descriptions. This suggests that locative expressions as witnessed in the above examples play a decisive role in drawing directional meanings in TA. I defer discussing the full implications of this linguistic behaviour to section 5.5.5, where analysis of the above data concerns the elaboration of path details at the clause level and extended texts. For now, I move to the next stage of the analysis, namely the lexicalisation of manner verbs in TA.

5.5.2. Manner Verbs

According to Talmy (1985) V-languages tend to have fewer manner verbs than S-languages and Slobin suggests that even “V-language use engenders a habitual rhetorical style in which Manner is not highly salient (2004: 257). However, neither prediction has been born out in this study in that the Tunisian participants have used a total of twenty-three manner verbs – a

⁴⁸ Here I follow Talmy (1985) and Slobin (1996) in categorising these verbs as Manner-type verbs.

⁴⁹ It has not been possible to confirm this claim by means of a recognised Tunisian corpus simply because one does not yet exist.

⁵⁰ *Luṭa* ‘down/ward’ is ambiguous between direction and location. Where it is used with dynamic verbs of ascending/descending *luṭa* receives a directional interpretation. However, a locative reading obtains when it accompanied with locative verb like ‘sit’ or ‘lay’.

number that far exceeds that reported for Spanish, for instance (Berman and Slobin 1994).

I have split these manner verbs into two categories. Table 5.3 shows manner verbs which are quite basic in the sense that they lexicalise general manner of movement verbs rather than fine-grained manner types. These tend to describe semantically prototypical acts of ‘walking,’ ‘jumping,’ ‘running,’ ‘escaping,’ ‘flying,’ ‘stopping,’ ‘climbing’. Table 5.3 shows 15 of these manner verbs:⁵¹

Table 5.3: General Manner Verbs in Tunisian Narratives

TA	English	TA	English gloss
<i>nağgi-z</i>	‘jump’	<i>t-a:r</i>	‘fly’
<i>debb</i>	‘jump’	<i>hrab</i>	‘run.off’
<i>qfiz (S/B)</i>	‘jump’	<i>3a:m</i>	‘swam’
<i>tsalliq (S/B)</i>	‘climb’	<i>h-b-i-s</i>	‘stop firmly’
<i>t-l-a-’</i>	‘climb’	<i>darrig</i>	‘hide’
<i>mšá</i>	‘walk’	<i>t-a-h</i>	‘fall’
<i>rkib</i>	‘ride/get on’	<i>whil</i>	‘(get) stuck’
<i>jrú</i>	‘run’		

In addition to these general Manner verbs, Table 5.4 shows a further 13 verbs describing fine-grained Manner of Motion:

Table 5.4: ‘Fine-grained’ Manner Verbs in Tunisian Narratives

TA	English glosses
<i>zrif</i>	‘squeeze in/past quickly’
<i>zriğ</i>	‘appear suddenly (pop.out) usually associated with undesirable animals, like snakes’
<i>thattil</i>	‘walk slowly’
<i>da3tir</i>	‘stumble’
<i>srah</i>	‘roam for animals’
<i>takka</i>	‘lean on/ lay down’
<i>lhim</i>	‘attack’ by consuming like fire would
<i>həj</i>	‘attack’ by overwhelming and overpowering. Similar to the English <i>expression going wild on</i> [someone].
<i>tsayib (‘li:h)</i>	‘released’/ or ‘freed’ (oneself) to wage an attack
<i>ta’biš</i>	‘climb with difficulty’
<i>telbiš</i>	‘climb with difficulty’
<i>tfarrit</i>	‘disperse’
<i>fsa3</i>	‘escape fast’

It is interesting that the narrators in this experiment have used such a versatile Manner lexicon to describe the frog stories. Perhaps the most important thing to notice

⁵¹ Note that the verb *debb* ‘jump’ is unique to the dialect spoken in Zeramidine. Although the other two verbs are also used in this dialect, they do not carry semantic nuances (only differences of register).

in Table 5.4 is that verbs associated with particular semantic fields show more types than the verbs collected in both the English and Spanish frog stories. For instance, as well as the neutral verb *tla3* ‘exit’, some subjects have used the verbs *zriġ* and *zriff* to describe the sudden emergence of the owl from the hole in the tree. The verb *zriġ* expresses ‘a sudden and unexpected appearance’ of some creatures. Similarly, the verb *zriff* implies an unprecedented, swift movement of some Figure resulting in ‘squeezing’ past an obstacle (e.g. door, narrow opening).

In (44), the subject uses the verb *sraħ* which is usually associated with animals ‘roaming’ in the field (especially when they are feeding on grass) to describe the motion of the bees, rather than the more neutral verb *ta:r* ‘fly’. In this data, *sraħ* is used together with the expression meaning ‘by itself’ to describe the swarm of bees flying around in the forest/wilderness ‘in a leisurely manner’:

- (44) [A-44-M/29-08]
E-nnaħal wi=l=ferfezzou qa3id yasraħ 3lə ruħ=u
 ART=bees and=ART=wasps remain.PF.3M 3M.roam.IMPF on self=3M⁵²
 ‘The bees and the wasps are **flying** around (minding their own business)’

In the following extract subject [F] uses the verb *da3tir* ‘stumble’ in its participial derivation to describe the way the boy stumbled on the rocks while trying to escape from the owl:

- (45) [F-T-37-M/115-116]
Kull marra mittda3tir fi ħajra
 every time stumble.PART.3M in rock
 ‘He keeps stumbling over different rocks (every time)’

Of particular interest is that the elicited data shows that the semantic category of [ATTACK via MOTION] has more verb types than any other verb in this data. As well as the expression *jræ fi: jurtu:* ‘run in his footsteps’, the attack waged by the bees on the dog and the owl was described by means of a further three rich manner verbs, namely the verbs *tsayyib*, *h-ċ-j* and *lhim* as follows:

⁵² Please note that the gender marker 3M sometimes appears word-initially as in (e.g. 3M.roam.IMPF) or finally (e.g. self=3M), depending on its position in original.

- (46) [M-T-57-F/89-15]
L=kelb tasayyib 3li:=h l=manḥla
 ART=dog REFL.release.PF.3F on=3M ART=hive
 ‘The hive swarmed the boy’

The verb *tsayyib*, when used alongside the preposition ‘*lā* ‘on’, depicts a scenario where a caged animal has broken free and waged an attack. Similarly, the verb *hāj* in extract (47) describes an agent who was calm, became enraged and swarmed the victim:

- (47) [E-T-50-M/60+61-12]
Ṭaḥit hāk l=bi:t mta’ in=nḥal
 fall.PF.3F that ART=hive of ART=bees
 ‘The beehive fell down’

W hāj 3li:=h
 and swarm.PF.3M on=him
 ‘And [the bees] swarmed him’

Still within the semantics of [ATTACK via MOTION], the mono-lexemic verb *lhim* has been used to describe two different ‘attack scenes’: when the bees swarmed all over the dog and also when the owl ‘swooped’ over the boy. Usually the verb *l-h-m* is used to describe fire. When fire is said to *lihmit*, it means that the fire ‘gets more and more fierce’. In example (48), subject [I] describes the bees’ attack on the dog to a fire surrounding and consuming an object, i.e. overwhelming the dog:

- (48) [I-T-39-M/89-15]
Lihmit fī:=h in=nḥal
 swarm.PF.3F in=3M ART=hive
 ‘(And the dog) was ravished (by the bees)’

Similarly, in example (49) the verb *lhim* is used by subject [G] to describe the attack of the owl on the boy when it popped out of the hole:

- (49) [G-T-40-M/58-16]
L=bouma lihmit fī hāk lu=wlayyed
 ART=owl attack.PF.3F in that ART=boy
 ‘The owl attacked the boy’

The above examples showcase the Tunisian participants to use different types and tokens of manner verbs. The data show a total of 47 different motion verbs. These divide into 20 path verbs and 27 manner verbs. Although these are relatively fewer than the 58 verbs collected from Slobin’s English subjects (Slobin 1996b: 198), they are considerably more than those collected from a typical verb-framed language like

Spanish (27 verbs in recounting the same story; Slobin 1996b: 198). It is also worth remembering that the verb stock in English and Spanish came from a significantly higher number of frog stories than the one collected here (13 stories in total compared to 148 English stories and 138 Spanish stories collected from participants aged between 3-11 and adults).⁵³

Consequently, despite their comparatively limited number, TA frog stories show a fairly balanced lexicon of 20 path verbs (of which two are regional variations) and 26 manner verbs. This suggests that TA speakers seem to treat Path and Manner in a fairly similar fashion. According to Slobin (2000), this linguistic behaviour is atypical of V-languages.

It is also significant that certain semantic fields (i.e. [ATTACK via MOTION], [SUDDEN APPEARANCE] of a figure) seem to have more verb types than what has been reported in Berman and Slobin's (1994) data for English and Spanish. Although it is not known whether Berman and Slobin (1994) have considered these verbs to be motion verbs, the current analysis suggests that attention to Manner versus Path may not only be influenced by morpho-syntactic and extra-linguistic factors (i.e. cultural, historical, or genre-related factors) but also seems to be domain-related. Consequently, the above analysis encourages the conclusion that TA is an 'atypical' member of the V-language typological group despite the fact that the core semantic feature of Path is lexicalised in the main verb rather than in satellites.

With these results in mind, in the following section I explore another TfS prediction for Semitic language speakers. This concerns the claim that relatively reduced attention to Manner information at the level of the verb is not compensated for by V-languages at extended narratives. In Slobin's (1996a) view adding more subordinate clauses, adjuncts, adverbs, or other syntactic means to describe Manner outside the main verb is cognitively demanding and hence dispreferred. Furthermore, he points out that "even when considering alternative expressions of Manner, S-languages texts still show relatively greater attention to Manner, in both quantitative and qualitative terms (Slobin 2004: 232). Consequently, it is interesting to see whether this is the case for TA narrators as well. This is the subject matter of the following section.

⁵³ "We have 148 frog stories in English, gathered in Australia and the US, and 138 in Spanish, gathered in Spain and Chile. Both samples cover the age ranges 3-11 and adult. The lists of verb types [...] represent all descriptions of self-movement, used in the entire story of 24 pictures, in the two languages" (Slobin 2000: 114)

5.5.3. The Description of Manner Outside the Verb

As well as the 27 manner verbs collected from the frog stories, the subjects in this experiment used other linguistic strategies to further elaborate the semantic component of Manner. I have identified the following types:

a. Action verb + Prepositional Phrase

In TA, a prepositional phrase may be used to describe Manner via Caused Motion especially with path verbs. In the following extract, a prepositional phrase *3la raasu*: ‘on his head’ is used to describe the manner in which the boot has been turned upside-down. While an English speaker has particles to describe the manner and direction of the ‘turning of the boot’, Tunisians have projected their own body posture so that, as in a normal human posture the opening of the boots becomes its head. Consequently, **flipping it over** is conceptualised as upsetting the normal posture by having the legs up and the head facing down:

- (50) [B-T-40-M/21-04]
Qilbu 3lê ra:s=u
 turn.PF.3M on head=POSS.3M
 ‘He turned it [the boot] upside down’

b. Motion verbs + adverb phrase (PP)

In another extract, subject [F] describes the manner in which the frog escaped from the jar by describing it as –literally – ‘escaping with its skin’ which may translate as ‘run for dear life’:

- (51) [F-T-37-M/16-02]
Ij=jrana fa3it b=jild=hê
 ART=frog escape.PF=3M with=skin=POSS.3F
 ‘The frog ran for her life’

It is important to note that verb *f3a3* ‘escape’ conflates Manner with Motion. It is further modified for manner by means of the prepositional phrase. While the verb *hrab* entails ‘runs off’/ ‘escapes’, the verb *f3a3* implies escaping but with an added meaning of ‘breaking loose from something’. In this case, there is a tendency to picture the protagonist performing the act with a lot of speed and swiftness.

A similar metaphorical expression has been used in the following two extracts. Subjects [G] and [A] have used the prepositional phrase *on the eye of his back* ‘on his back side’ to add more Manner information to the Caused Motion verb *jabittu*

‘make.bring.PF.him’. The result is a specification of how the boy ended up when he fell both from the tree and from the cliff:⁵⁴

- (52) [G-T-44-M/54+55-14]
ʔal3iʔ=l=u *min=hæ* *bu:ma*
 exit.PF.3M=to=3M from=3F owl
 ‘An owl popped out (to him)’
- Jæbit=tu* *3lə* *3i:n* *qfæ=h*
 bring.3F.PF=3M on eye back=3M
 ‘She made him fall on his back side’
- (53) [A-T-44M/78-20]
Ta: h *3lə* *3i:n* *qfæ=h*
 fall.PF.3M on eye back=3M
 ‘He fell on his back side’

c. Participles + prepositional phrases

In the following two extracts, another subject uses prepositional phrases to add more manner information to the participle of the verb ‘escape.’⁵⁵ The dog is not just ‘running off’ but is described as running for its life because it is being chased by the bees:

- (54) [F-T-40-M/108-15]
Hærib *b=jallu:=hu*
 run.PF.3M with=life=POSS.3M
 ‘He is running for his life’

d. Path verbs + Gerunds

As well as with prepositional phrases, manner information has also been described using gerund forms of motion verbs. In the following extract the verb ‘escape’ has been modified with the verb ‘run’ to yield the literal English equivalent of ‘he escaped running’:

- (55) [M-T-57-F/91-15]
Hawna *hrab* *yijri:*
 there escape.PF.3M 3M.run.IMPF
 ‘There he goes, running off for his life’

⁵⁴ Slobin’s data shows English participants use the causative construction [to *bum* someone *down*] in the context where the boy fell off the tree and down on his backside. I discuss this causative construction in Chapter 6.

⁵⁵ The distinction between the category of verbs and that of participles in Arabic is fairly fuzzy since participles are derivations of root verbs and may carry verbal inflections as well. “The most obvious characteristic that participles share with verbs is that active participles can take both direct and indirect objects [...] participles can carry gender inflection for subject, but not person” (Brustad 2000: 163). “Arabic has both active and passive participle forms [...] and both forms can give verbal, nominal and adjectival meanings” (Brustad 2000: 165)

e. Path verbs + emphatic pronoun + verb-initial subordinate clauses

As well as the above strategies, the collected data shows the subjects using two motion verbs intercepted by a pronoun. It seems that this construction adds more Manner of Motion to the event being described. For instance, in extract (56), the verb *t'adda* 'pass' in the sense of 'passing from one point to another', has been modified by the verb *tkarbis* 'roll' to describe the manner in which the boy fell from the cliff when the deer stopped suddenly. The subject pronoun seems to be used here to mark a change of topic from the deer to the boy. It is not required by the grammar since the verb *t3dda* indicates that the subjects is a male (third-person singular) and that the action has been completed. From a syntactic point of view therefore, the pronoun *huwa* is redundant.⁵⁶

(56) [F-T-37-M/147+148+149+150-20]
Darbit rijlæ=hæ lquddæm=i:n l=wæɫæ (.) *habsit=hum*
 hit.PF.3F feet=POSS.3F ART=front=PL ART=first ones (.) make.stop.PF.3F=3PL
 'She pressed onto her front legs, and made them stop'

T'adda huwa yitkarbis
 pass.PF.3M him 3M.roll.IMPF
 'He [the boy] went tumbling down'

Similarly, in (57) the same subject uses the same construction to talk about the manner in which the dog fell off the cliff. Here, he states that the dog ended up 'rolling' as a result of the fall. The path verb *t3adda* 'cross' is modified by a subordinate clause headed by the object pronoun *huwa* 'him' which is then followed by the verb-initial clause *yitkarbis* 'roll' and the locative expression *luṭa* 'down' to further elaborate the trajectory of the rolling motion:

(57) [F-T-37-M/150+151-22]
L=kelb ki:f ki:f t3addæ huwa yitkarbis luṭa
 ART=dog as well pass.PF.3M him 3M.roll.IMPF down
 'The dog went tumbling down as well'

f. Verb-initial clauses + asyndetic verb-initial clauses

It is quite common for TA to conjoin two clauses without any overt form of coordination in order to add more manner details to a motion event. In the following extract the verb *hrab* 'escape/run off' is preceded by the verb *jfil* 'scared off' in describing the emotional state of the deer. The verb *jfil* is typically used for animals

⁵⁶ This is a characteristic feature of pro-drop languages. Pro-drop languages do not require subjects with their verbs and the verb carries inflection to mark grammatical aspects (person, number, etc.) of the subject.

when they are ‘scared off’. Consequently, the deer is described as running off and this is described in the narrative by adding a second verb-initial clause. The fact that no overt coordinating conjunction has been used seem to suggest that the two clauses have a cause-and-effect relationship –the animal escaped/ran off because it got scared:

- (58) [A-T-44-M/64+65-19]
Lahnə l=iğzel jfil (.) hrab
 here ART=deer scared.PF.3M.Acc (.) run.PF.3M
 ‘Here the deer got scared off’

In the following example, a second clause is used to elaborate the manner in which the boy fell. He is described as having landed ‘on his back side’:

- (59) [A-T-41-F/77+78+79-14]
Tifja3 i=tful (.) ta: h (.) jæ: 3lə dahr=u:
 scared.PF.ACC.3M ART=boy (.) fall.PF.3M (.) arrive.PF.3M back=POSS.3M
 ‘The boy got scared; he fell off down onto his back’

Equally, in extract (60) the subject uses a subordinate clause headed by a fine-grained manner verb to elaborate the manner in which the protagonists fell. In this instance, when the deer stops suddenly, the boy is described as suffering the same destiny as a watermelon when falling to the ground *tfašikh* ‘exploded’. The locative preposition *luṭa* adds more dramatic effect to the fall by projecting the relative distance of the fall from the cliff:

- (60) [F-T-37-M/152-22]
Ta: h (.) tfaših lu:ta
 fall.PF.3M (.) explode.PF.3M down
 ‘He fell off and crashed onto the ground’

All in all, therefore, TA seems to provide its speakers with various morphosyntactic means for the elaboration of manner details. At clause level, a substantial stock of manner verbs is available to TA speakers. Beyond the clause level, various other means are also available. This suggests that TA speakers seem to be privileged in the opportunities their language affords them for manner expression.⁵⁷ Even more interesting, is that the data suggest that these speakers capitalise on these affordances while thinking-for-speaking about the frog story events.

⁵⁷ This conclusion is of course based on a loose definition of what Manner is — a definition which is broad enough to include any verb as long as it describes any notion of motion other than Path.

5.5.4. Boundary-Crossing

The frog story has at least three identifiable ‘exit’ scenes where a boundary is crossed. These are scenes where the frog (picture 2), the gopher (picture 10) and the owl (picture 12) make a move from an enclosed boundary (a jar, a hole in the ground, and a hole in a tree, respectively). The use of bare-verb complexes in TA is not completely non-existent. Locative particles acting in a satellite fashion have been used to elaborate ground descriptions across the story. What is at issue here is whether Tunisian subjects have used manner verbs with locative particles to describe trajectories which involve crossing boundaries, or whether bare verbs with inherent meaning of ‘exiting’ have been used instead. The results summarised in Table 5.5 shows there is an overwhelming tendency to favour the latter option:

Table 5.5: Boundary-Crossing in Tunisian Narratives

Scenes	Jar Scene	Gopher Scene	Owl Scene	Total out of 39	%
Bare Path Verbs	<i>hrab</i> ‘escape’ (x2)	<i>ṭla</i> ‘climb’ (x8)	<i>ḥraj</i> ‘exit’ (x2) <i>ṭla3</i> ‘exit’ (x4) <i>Jæ:</i> ‘arrive’ (x1)	17	43.58
Non-Motion Verbs	0	<i>ṭal</i> ‘look’ (x1)	<i>ṭal</i> ‘look’ (x1) <i>lqa</i> ‘find’ (x1)	3	7.69
Bare Path Verbs + <i>from</i> Clause	<i>ṭla3</i> ‘exit’ (x4) <i>hrab</i> ‘escape’ (x2) <i>ḥraj</i> ‘exit’ (x1)	<i>ṭla3</i> ‘exit’ (x2) <i>ḥraj</i> ‘exit’ (x2)	<i>ḥraj</i> ‘exit’ (x1) <i>ṭla3</i> ‘exit’ (x3)	14	35.89
Path Verbs + Satellite	0	0	0	0	0%
Bare Manner Verbs	<i>fsa3</i> ‘escape’ (x1)	0	0	1	2.56
Manner Verbs + Satellite	0	0	0	0	0
Manner Verbs + <i>from</i>-Clause	<i>ḍebb</i> ‘jump’ (x1) <i>naḡḡiz</i> ‘jump’ (x1) <i>fsa3</i> ‘escape’ (x1)	0	0	3	7.69
Total				38	97.4

As Table 5.5 shows none of the participants used a manner verb plus a satellite to describe boundary-crossing events. 97.43% of all the participants used path verbs either in their bare forms or accompanied with prepositional phrases. 43.58% have used plain path verbs and 35.89% have used prepositional phrases headed by the preposition ‘from’ when indicating the source of motion. Only one case has been recorded where the subject has used a bare manner verb (2.56%) and only three instances (7.69%) where a bare manner verb (e.g. *ḍebb* ‘jump’, *naḡḡiz* ‘jump’ and *fsa3* ‘escape’) and a *from*-type prepositional phrase.

Slobin's predictions for the expression of boundary-crossing events, therefore, seem to materialise. The total number of verbs used to describe these exiting scenes are limited to just five types: *ɬla* 'exit', *hraj* 'exit', 'nağğiz', *dabb* 'jump', *jə:* 'arrive'. Moreover, on three occasions the non-motion verbs *tall* 'look.(at)' and *lqa* 'find' have been used to describe the sudden appearance of the gopher and the owl respectively. In the Gopher scene, for instance, narrator [F] describes the sudden emergence of 'the mouse' by means of the verb *tall* 'look.(at)' as follows:

- (61) [F-T-37-M/82+83-11]
Bæqi *ylawwij* *fi=hæš* *ij=jrana*
 remain.IMPF.3M 3M.search.IMPF in.it.(is).there ART=frog
 'He is still checking to see if the frog is inside the hole'

Yahi, *tall* ' *3l=i:h* *fa:r*
 then, look.PF.3M on=3M mouse
 'Suddenly, a mouse popped out'

Furthermore, a deeper analysis of the boundary-crossing scenes reveals even more peculiarities about the TfS habits of TA speakers. Narrators in this study have predominantly combined more than one clause to describe a boundary-crossing event and elements of Manner that are deemed important to the narration of the actual event. Stringing clauses together takes place either with the aid of a coordinating particle (i.e. *wæ* 'and') or without. In all these scenes, subjects behave as if the boundary-crossing takes place in two stages. In stage one, the description takes the trajectory up to the borderline of enclosed ground. In stage two, it takes the trajectory out of the enclosed boundary by means of other clauses. In many of the examples I cite below, stage two depicts the result of the prior motion:

- (62) [D-T-47-M/09+10+11-02]
Ij=jrana *hawni* *dæbbit* *mi=l=waħda* *w* *faš3it*
 ART=frog there jump.PF.3F from=ART=thing and escape.PF.3F
 'The frog jumped out of that thing and run off'

Extract (62) is a noun-initial sentence. The frog is described as having jumped. Rather than focusing on the forward trajectory which would take the event out of the jar, the subject focuses instead on the source location where the jump has been initiated from (i.e. by means of a locative prepositional phrase 'from the thing'). In theory, TA speakers can use path particles like *l=barra* 'to-out', however, this has not been used here. The perspectivisation of the jumping activity seems to be directed 'backward'. The result is that the forward motion is left unspecified. It seems that crossing the boundary

of the hole by means of the manner verb ‘jump’ is dispreferred. To overcome what may be considered a syntactic/conceptual hurdle, the current narrator focuses on the end result of the jump by adding a second clause headed by the coordinating conjunction *w* ‘and’ and the motion verb, i.e. *faṣ3it* ‘escape quickly’. The fact that the two clauses are combined by means of a coordinating device (i.e. *wæ* ‘and’), explicitly signals the semantic and syntactic connection between the two stages. This licenses the inference that a boundary has been crossed.

Similarly, in extract (63) subject [D] elaborates the crossing of the boundary by means of two stages. However, there is an interesting twist to how the two stages are coordinated. The owl is syntactically portrayed as being the subject of the motion but semantically it is the boy who is the topic of the event. The passivised verb-initial sentence has immediate syntactic and conceptual (inferential) consequences on the general motion event narrative. First, by focusing on the boy as the main topic of the event, it paves the way for a second clause that elaborates the result of the first clause. Second, it limits the elaboration of the owl trajectory within the confines of boundary of the hole, i.e. the point where the boy was located. Adding another verb-initial sentence, the narrator then elaborates the consequence of event one by specifying that the boy fell down. Interestingly, the coordination is here carried out asyndetically:⁵⁸

- (63) [D-T-57-F/83+84-14]
Jæt=u *buma* *(.)ta:h*
 arrive.PF.3F= 3M owl (.)fall.PF.3M
 ‘An owl popped out and made him fall’

The fact that this scene is expressed by means of two verb-initial sentences in asyndetic fashion is significant because it suggests that these two stages are seen as being syntactically and semantically/conceptually bonded. This rhetorical style can also be seen in the extract (64) as follows:

- (64) [B-T-40-M/46+47+48-14]
Tal3it *háek* *l=bouma,* *(.)tiffa ’,* *ta: h*
 exit.PF.3F that ART=owl (.)scare.PF.3M.ACC fall.PF.3M
 ‘That owl popped out, and pushed the boy down onto the ground’

Extract (64) contains three verb-initial clauses. It describes the sudden emergence of the owl up to the boundary where the boy was standing. Just like in extract (63), the subject of clause one is not the topic of the sentence. The motion activity is again

⁵⁸ As I discuss in 5.4.2, TA asyndetic coordination seems to have a consequence on how journeys are elaborated.

described up to the point where the boy was located. Then, using an asyndetic verb-initial clause, the boy is described as having been scared which causes him to fall off the tree and down.

Consequently, there seems to be enough evidence to suggest that TA speakers obey the boundary-crossing principle. However, it is also important to note that TA seems to allow (without any additional cost) the stringing together of various clauses either syndetically or asyndetically, to override the restrictions imposed by the boundary-crossing principle. In other words despite the lack of satellites in this language, narrators seem at ease stringing various clauses together to take events out of the confines of a boundary to elaborate motion events.

5.5.5. Ground Elaboration

This section concerns itself with the elaboration of ground details. Slobin (2003: 169) provides the following predictions about how grounds are elaborated differently by S- and V-language speakers:

Briefly, V-language narratives are more concerned with establishing the physical and emotional settings in which people move, often allowing both path and manner to be inferred, whereas S-language narratives attend to both manner of movements and successive path segments. (Slobin 2003: 169)

Based on the above claim, I seek answers to the following three questions:

1. What type of path expressions have Tunisians used at the clause level?
2. How many bare verbs did they use?
3. How many minus-ground and/or plus-ground clauses did they use?

The data summarised in Table 5.6, reveals some disparity between individual narrators' performances:

Table 5.6: Ground Elaboration: *The cliff scene*

Subject ID	Total Clauses	Minus-Ground Clauses		Plus-Ground Clauses	
		Bare verbs/ verb complexes	Non-motion verbs	One Ground	Two Grounds
[A]	20	8	3	8	0
[B]	18	8	4	6	0
[C]	17	8	2	8	0
[D]	13	7	3	3	0
[E]	10	4	4	3	0
[F]	21	7	6	7	2 [18-134/136]
[G]	8	2	2	4	0
[H]	12	5	1	7	0
[I]	21	9	6	5	0
[J]	13	1	4	7	0
[K]	14	7	2	4	0
[L]	15	6	4	5	0
[M]	9	6	1	2	1
Total	191	78	41	69	3
Percentage	100%	40.83%	21.46%	36.12	1.57%

A closer look at Table 5.6 reveals some disparity between the performances of individual participants. Some participants have used just eight clauses to elaborate the trajectory in *The cliff scene*, while others have used as many as 21 clauses for the same purpose. However, despite these differences one can draw some general guidelines about the preferences of TA speakers when elaborating ground information. For instance, from a total of 191 clauses (including verbless clauses), the Tunisian subjects have used 75 verbs (40.83%) containing no explicit ground information; 69 clauses (36.12%) either mention source, milestone or goal of a trajectory; and only three instances (1.57%) mention more than one ground within the same clause. Table 5.6 also shows that the subjects have used 40 clauses (21.46%) which include non-motion verbs like the English *look* and *think*. In general, however, the Tunisians in this data have used more minus-grounds clauses (62.29%) than plus-ground clauses (37.69%).

The most striking thing about Table 5.6 is that out of 72 plus-ground clauses only three clauses contain more than one piece of ground information. Despite this relatively small number, none of the examples mentions a source and a goal using a single verb. In effect, all three subjects used a complex sentence to elaborate information about the direction and the goal of the trajectory. In the following examples, I put the motion verb into boldface and include ground nominals between brackets with the superscript _{G1} and _{G2} for Ground 1 and 2, respectively. In extract (65) for instance, the speaker uses the caused motion verb *jâb* ‘bring.over’ or ‘make change of location’. He elaborates the trajectory by means of a locative phrase stating the milestone of the trajectory. Then, a

second prepositional phrase headed by the preposition *fī* ‘in’ is added to describe the end-location of this trajectory ‘in the ditch’:

- (65) [D-T-44-M/62-20]
Jāb=u *G1[qɔddēm=u]* *G2[fī l=hfu:f]*
 bring.PF.3M=3M *G2[front=3M]* *G2[in ART=ditch]*
 ‘He threw him ahead and into the ditch’

Similarly, in extract (66) participant [M] elaborates the trajectory the boy followed by means of the path verb *tla* ‘climb’ followed first by the locative prepositional phrase *min fu:q iššujra* ‘from the top of the tree’ and then by a second locative preposition phrase *min ġɔdi* ‘from over there’:

- (66) [M-T-57-F/134-24]
Haw tla’ *G1[min fu:q iš=šujra]* *G2[min ġɔdi]*
 There climb.PF.3M *G1[from top.of ART=tree]* *G2[from there]*
 ‘There he is climbing up the tree from over there’

The two ground elements in these examples do not fulfil the Complete Path Hypothesis (CPH) (Ibarratxe-Antuñano 2004) known to be colloquially used in the thinking-for-speaking of English native speakers (Slobin 1996b). It seems that Tunisians disprefer shifting attention between the source and the goal of a trajectory. The two ground elements in (40) elaborate the direction and/or source of a trajectory and those in (39) elaborate their goal. Yet, not even one incident has been recorded which combines both a source and a goal of a trajectory.

This preliminary conclusion should not obscure the fact that *plus-ground* clauses, which specify one ground element, have been attended to quite regularly. As Table 5.5 shows 36.12% of total clauses that were used to describe *The cliff scene* contained at least one ground element. Generally speaking, the ground elements identified in this sample fulfil one of two functions. Some ground elements have combined with dynamic verbs of motion and specify information about milestones, sources, and goals of trajectories. Others have been used in either verbless clauses or clauses containing verbs of stasis to describe the location of a Figure at a certain point of the trajectory.

To illustrate, consider extract (67). Participant [D] uses the dynamic verb *wšil* ‘reach’ and the ground nominal *iššæ:fa mta3 ij=jbal* ‘the edge of the cliff’ to describe the trajectory of the deer.⁵⁹

⁵⁹ Note that glosses phonemic transcriptions in the main text follow left-to-right European writing style. In the main examples they are presented from right to left.

- (67) [D- 47-M/60-20]
Wʃil l=iʃ=ʃɛfæ mta ' ij=jbel
 Reach.PF.3M to=ART=edge of ART=mountain
 'He reached the edge of the cliff'

However, the ground nominal in (68) appears in a verbless clause. It is used to describe a static path rather than a dynamic trajectory:

- (68) [H-T-17-F/72-18]
W huwa fu:q ra:s=ha
 And him on.top head=Poss.3F
 'With him (the boy) onto her head'

Similarly, in extract (69) the ground element *wæd* 'river' is introduced by means of a verbless clause similar to the English 'there is'. In Slobin's (1996b) terms, this construction is typically used in verb-framed languages to set the scenes in which trajectories are taking place rather than the dynamics of the motion itself:

- (69) [B-T-43-M/86+87-22]
Ki=ʃa h min hnæ famma wæd taht l.wahda
 When=fall.3M.PF from here there.is river under ART=thing
 'When he fell off here [the cliff]'

The above analysis are an unequivocal testimony to the reluctance of TA speakers to use *plus-ground* clauses containing source and goal information. Still, there is no paucity of ground information in this data. The question which follows from these results is whether the lack of clause-compacting strategies on the one hand and the reluctance to fulfil the exigencies of the Complete Path Hypothesis has an overall impact on how events proceed. To explore this avenue, we need to go beyond the clause level and see how whole journeys are elaborated.

According to Slobin (1996b: 204), although in theory V-language speakers can string clauses together to describe details of Path in a journey, this does not tend to be the normal course followed. Stringing several clauses together seems to be stylistically heavy and consequently dispreferred. Instead, V-language speakers tend to focus on setting scenes so that details about the trajectory of motion can be constructed:

English with its rich means for path description can often leave setting to be inferred; Spanish, with its sparser path possibilities, often elaborates descriptions of settings, leaving paths to be inferred.
 (Slobin 1996b: 204)

In the following section, I test these predictions in three stages. The first two stages focus on *The cliff scene*. Second, I ask how many path segments TA narrators mention

in this scene. Third, I raise questions about Slobin's claim about the causal link between processing heaviness and the number of clauses.

5.5.6. Dynamics of Movement versus Scene-Setting

Various researchers (e.g. Slobin 1996, Ibarretxe-Antuñano 2004) claim that in *The cliff scene*, the way in which the two grounds (*the cliff* and *the lake*) are expressed reveals whether speakers prefer to focus on the dynamics of motion or on static event descriptions. Speakers have several options. One option is to introduce these two grounds as part of a dynamic event description by means of motion verbs. A second option is to introduce them in a static fashion by means of verbs of location (e.g. 'There was a lake'). A third option may be to leave ground information to be inferred from context. For instance, a speaker might specify the end goal of the fall (i.e. *the river*) without specifying where the fall initiated from (i.e. *the cliff*). Generally speaking, the hypothesis is that S-language speakers would focus on the dynamics of movement leaving the specification of the cliff to be inferred from the trajectory of the fall. Spanish speakers, however, would focus attention on the setting (i.e. where everything is located) so that inference about movement can take place. As Ibarretxe-Antuñano (2004) put it:

The information about the Ground provided by the narrators is the same in these languages. What seems to be different is, first, the means by which this information is conveyed: in Path descriptions or in setting descriptions; and, second, as a consequence, the focus of narrative attention: dynamics of movement or static scene-setting. (Ibarretxe-Antuñano 2004: 98)

Slobin found that 100% of the English narrators he tested mention at least three path segments while only 75% of Spanish narrators mentioned at least three. *The cliff* was introduced by dynamic motion verbs 84.61% of the time and *the lake* 83.5% of the time. Two of the subjects did not mention *the cliff* and two introduced *the lake* in a static fashion. For instance, participant [B] first introduces the cliff dynamically by means of the path verb *jæ* 'arrive'. Then, in a separate clause, he goes on to introduce the ground *wæ:d* 'a river' in a static fashion by means of the construction [*famma*] ['there is']:

(70) [B-T-43-M/79+81+82] [22-86+87-20]
Hiya tijri [jɛt fɪs=sɛfɛ] w [miʃ itti:h]
 she run.IMPF.3F arrive.PF.3F in=ART=edge and [FUT fall.IMPF.3F]
 ‘As the deer was running on she came to the edge of a cliff and nearly fell off’

Hɛdɛ ki=ta:h min hnɛ: famma wɛ:d taht il=wahdɛ
 this when=fall.PF.3M from here there.(is) river under ART=thing
 ‘Luckily, when he fell down he landed into a river’

A slightly different narrative style can be seen in excerpt [71] where [C] initially introduces the cliff by describing it as ‘(the location) on top of a ditch’ by means of the verb *jɛ:t* ‘arrive’. She then uses the same verb to introduce the lake as being the goal where the boy landed, as follows:

(71) [C-T-41-F/109+110+111+112+113-19]
Li=ǧzɛlɛ jɛt fu:q ki=l=hfuf
 ART=deer arrive.PF.3F on.top like=ART=ditch
 ‘The deer came to a ditch-like place’

Rmɛ:t lu=wlayyid min fu:q ra :s=ha, tayhiɛ=u:
 throw.PF.3F ART=boy from top head=Poss.3F make.fall.PF.3F=3M
 ‘She shook the boy off her head and made him fall’

Waqtili=tahu: jɛ:w fi=wɪʃt ǧdi:ra
 When=fall.PF.3PL arrive.PF.3PL in=middle lagoon
 ‘When they fell, they landed into a lagoon.’⁶⁰

Overall, 10 out of 12 subjects introduced ground elements depicting source and goal using dynamic verbs of ‘falling’, ‘sinking’, ‘arriving’ and ‘reaching’. Consequently, this does not seem to support Slobin’s prediction of typical V-language behaviour with reference to scene-setting versus dynamics of movement. However, expressions like *He fell off the cliff down into the water*, for all the simplicity that it may offer an English language speaker, have not been recorded in this data. The overwhelming tendency of TA narrators has been to use more than one clause to describe the trajectory of the fall. This is interesting since it suggests that the thinking-for-speaking behaviour of Tunisians may show some further idiosyncrasies beyond the clause level. The following section explores this possibility with reference to path segmentation.

⁶⁰ Note that according to the collected English data in this study, example (67) ought to be compacted as follows: ‘She shook him off her head into a lake’ or ‘she pushed him off her head and into a lake’.

5.5.7. Path Segmentation in *The cliff scene*

The elaboration of path description varies between S-language and V-language speakers. According to Slobin, the journey followed by the characters in *The cliff scene* is not segmented in equal fashion by S-language speakers and V-language speakers, due to their respective linguistic preferences. S-language speakers provide more path segments than V-language speakers because satellites, the prerogative of S-languages, encourage focus on ground elements:

Languages differ with regard to the canonical segmentation of paths as well as the relative ease of building complex-path constructions. They also present an array of path elements going beyond the division into verb versus satellite. These differences are only partially determined by the Talmian typology. (Slobin 2004: 238)

Evidence for Slobin's conclusion comes from the number of path segments V-language and S-language narrators identify in *The cliff scene*. Although several researchers have followed this tradition (e.g. Ibarretxe-Antuñano 2004, Wilkins 2004, Zlatev and Yanklang 2004) a question has been raised as to the appropriateness of Slobin's methodology (e.g. Wilkins 2004). The question relates to how many path segments this journey should be divided into and how to score it. For instance, Slobin (1996b: 203) analyses the scene of the fall from the cliff into the following six segments:

1. Deer starts to run
2. Deer runs, carrying the boy
3. Deer stops at cliff
4. Deer throws boy (off antlers/down)
5. Boy and dog fall
6. Boy and dog land in water

He concludes that “[o]f the adult narrators, 100 percent of the Americans and only 75 percent of the Spaniards provided three or more segments of the journey” (Slobin 1996b: 203). The credibility of these results was questioned. According to Engberg-Pedersen and Trondhjem (2004), it is not clear which aspects of a segment must be included for the segment to be counted as present in a story. For instance, if for the description of segment 2 a subject mentions that ‘the deer runs’ but not that ‘he was carrying the boy’ how should this utterance be judged? They argue that Slobin was not clear about this (2004: 76). Similar arguments can be constructed for segment 4. In

effect, if a subject mentions that ‘the deer throws the boy in the water’, does that count as a statement comprising segment 4, segment 5, segment 6 or all of them together?

A different line of criticism may be marginally construed from the work of Wilkins (2004). Here speakers of Arrernte have analysed the scene in question into 14 distinct segments. These are considerably more than the proposed number of path segments found in Slobin (1996).⁶¹ Despite this interesting approach, Wilkins’ (2004) analysis is too specific and cannot be expected to be viable beyond Arrernte or other aboriginal languages.

In Slobin 1997 (p. 448), however, he suggests that *The cliff scene* can be divided into four potential event components. These are:

- i. Change of location: deer moves, runs, arrives at a cliff
- ii. Negative change of location: deer stops at cliff
- iii. Cause of change of location: deer throws boy, makes boy/dog fall
- iv. Change of location: boy/dog fall into water

As an alternative, I suggest that analysis of this scene should adopt a schematic approach which fulfils the following two criteria:

- (a) Schematicity: a schematic approach is broad enough to allow for inter- and intra-linguistic variation. After all one cannot expect all narrators within one language to use similar rhetorical styles. A schematic approach in this sense should provide a general outline of key stages in which the change of location of the protagonist and characters are involved.
- (b) Narrative ethics: usually story-telling involves a plot with four specific stages (Cuddon 1991): (1) stage setting, (2) a climax of events, (3) a down turn of events, (4) the end.

While Slobin’s (1997) schema seems to satisfy condition (a) in the sense that events are categorised in schematic terms, it fails condition (b) since it does not specify where the boy was located at the onset of the motion event. This is essential for the development of the downturn in the event and, consequently, should be of great significance to the narrators. The need to acknowledge condition (b) follows from the simple fact that a basic narrative has a plot (Cuddon 1991: 719). A plot needs to be a structured whole. Unity between the constituent part of a plot is critical since if one part

⁶¹ Wilkins (2004) came to this conclusion as a result of his analysis of 36 stories of Aboriginal (Australian) subjects. It is argued that the Arrernte speakers tend to code these various segments due to their habitual attention to the position of figures within the landscape.

is displaced or removed the whole plot will change or collapse (Cuddon 1991: 719). This is especially relevant to plots where events evolve by means of causality. If the criterion of causality is applied to *The cliff scene*, then the four stages are the minimum we can expect a narrator to attend to. The exception obtains when the linguistic means afforded by a language inhibits its speakers from doing so (Slobin 1996b, 1997).

With this in mind, in order to meet criteria (b), I suggest that the above list (i.e. from (i) through to (vi)) may be adapted as follows:

- i. **Onset of motion** (change of location 1): deer moves, runs off with the boy, arrives at a cliff
- ii. **Climax of motion** (Negative change of location): deer stops at cliff.
- iii. **Anti-climax of motion**: (Cause of change of location): deer throws boy, makes boy/dog fall
- iv. **End of motion**: (Change of location 2): boy/dog fall into water.

Following the above procedure of analysis, eight out of 12 participants (See Appendix 9) have mentioned all four path segments. The other four mentioned at least three. The lack of satellite particles does not have a negative impact on how many path segments are attended to in a narrative event. On the contrary, five subjects have even segmented this journey into eight segments.

At least eight subjects have segmented the onset of the motion event into the following four segments:

- Deer lift boy up/boy get stuck between antlers
- Deer starts to run
- Deer runs carrying boy
- Deer reaches cliff

To illustrate in the following extract participant [E] describes the above stages as follows:

(72) [E-T-51-M/85+86+87+89+90+91-18-20]

Hezz=u: *bi=gru:n=u* [85] *w* *jræ* *b=i:h* [86]
 Lift.PF.3M.ACC.him with=antlers=Poss(his) and run.PF.3M with=him
 ‘The deer lifted him [the boy] up and ran off with him’

L=kelb *yijri* *mil=lu:ta* [87] *w* *yanbah* [88]
 ART=dog 3M.run.IMPF from=below CONJ 3M.bark.IMPF
 ‘The dog is running along and keeps barking away’

Li=ǧzæl *hayif* [89] *yijri* *bil=wlayyid* [90]
 ART=deer scared.ACC.3M 3M.run.IMPF with=ART=youngster
 ‘The deer is running off with the youngster’

Jæ' *'læ* *šæfæ* *mta3* *wæ:d* [90] *w* *hibsu:* [91]
 arrive.PF.3M on ART=edge of river CONJ stop.PF.3M.PL
 ‘He reached the end of the cliff and (they) stopped’

In addition, all 13 subjects have divided the climax of the scene into two segments: one describing the deer’s initiating the change of location (i.e. throwing the boy) and the other describes its consequence: the boy and dog fall (without specifying the ground element) as in the following example:

(73) [D-T-47-M/60+61+62+63-20-22]

Wšil *liš=šæfæ* *mta' =ij=jbel* [60]
 reach.PF.3M to=ART=edge of=ART=mountain
 ‘He reached the edge of a cliff’

Hædækæ *drab* *frin* [61]
 that.one hit.PF.3M break
 ‘He made a sudden stop’

W *hædækæ* *jæ:b=u* *quɔddæ:m=u* *fi=l=hfu:f* [62]
 and that.one bring.PF.3M.ACC=3M in.front.of=him in=ART=ditch
 ‘The boy went flying off and down into the ditch’

Hawna *ta:h* *fi* *mustanqa3* *mta3=mæ*
 there.he.is fall.PF.3M in pool of=water
 ‘And there you have it! He fell into a swamp’

The above analysis of path information in the frog stories suggests that, in extended narratives, TA narrators attend to and elaborate path details in ways that seem to be atypical of verb-framed languages. This is different from what Slobin (1996b: 203-4) predicts for V-language speakers. According to him “Spanish speakers do not seem to ‘compensate’ for minimal use of source-goal clauses by means of a series of separate action clauses that analyse the Journey into its component” (1996b: 203-4). However, the data show that Tunisians elaborate all path segments using various verb-initial

clauses.⁶² Consequently, when combined with the results obtained for Manner (sections 5.5.2, and 5.5.3), the mere labelling of TA as verb-framed overlooks important TfS behaviour of these speakers in terms of both Manner (i.e. at the level of the lexicon) and Path (i.e. beyond the clause level).

5.6. Discussion

One can argue that labelling one language as an atypical member of its group is not productive since every language is in some respect ‘unique’ and ‘atypical’.

Consequently, unless one shows that the atypical behaviour of a certain language is motivated by some morphosyntactic, pragmatic, cultural, or other factors, the term ‘atypical’ becomes ‘an umbrella term’ which may imply that some linguistic behaviour is caused by inexplicable chance factors. Consequently, I now edge towards a possible explanation that accounts for the current data in a systematic fashion.

5.6.1. The Word-order Hypothesis

An important insight from the work of Brustad (2000) reviewed in Chapter 4, is that speakers of spoken varieties of Arabic (e.g. Moroccan Arabic, Syrian Arabic) tend to allocate different discourse functions for SV versus VO word order.⁶³ This fact brings to mind the following two questions:

1. Is the choice in TA between SV and VO word-order systematic, in the sense that TA speakers favours a particular word-order in one context and the alternative word-order order in a different context?
2. If the choice turns out to be motivated, may this explain why participants in this study paid due attention to both path and manner details when narrating the events of the frog story?

I can tentatively say that the Tunisian participants in this study seem to favour a rhetorical style in which “discourse topics which are introduced into the narrative” are usually “introduced as new entities or information” (Brustad 2000: 328). When this has taken place, TA narrators switch back to VS word order. The following example from TA data illustrates this discourse behaviour:

⁶² I develop this idea presently (§5.6.1).

⁶³ According Sebastián and Slobin (1994: 266 and 271) although Spanish deviates from the standard SVO word order, it does so in a very restricted manner. Despite this acknowledgment, the possible impact of word order when TfS –to my best knowledge – has not been discussed with reference to Spanish. Consequently, the hypothesis I propose here is valid for at least TA.

(74) [E-T-51-M]

L=kelb yijri mil=lu:ta w yanbaḥ [87+88-19]
 ART=dog 3M.run.IMPF from=below and 3M.bark.IMPF
 ‘The dog is running along and keeps barking away [at the deer]’

W=il=ǧzél hayif yijri bi=l=wleyyid [80-90]
 CONJ=ART=deer (is).scared run.IMPF.3M with=ART=youngster
 ‘The deer is scared and is running off with the youngster’

Jâ 'lâ šâfâ=mta3 wâ:d w ḥibsu: [91-92-20]
 arrive.PF.3M on edge=of river CONJ stop.PF.3PL
 ‘He reached the edge of a cliff’

Lu=wleyyid ta:h huwa w=ijir³w mtâ'=u [93-21]
 ART=youngster fall.PF.3M him CONJ=ART=dog POSS=3M
 ‘The boy fell off together with the his dog’

In extract (74) participant [E] uses noun-initial sentences when talking about different protagonists. First, the narrator introduces the ‘dog’ as new information by means of a nominal clause [87-19]. Then a second verb-initial sentence [88-19] is added because the topic (the dog) is kept constant. Next in [89-19] a noun-initial clause marks a turn of events where the discourse topic is no longer the dog but the deer. Once this is established, the narrator reverts back to VS word order where two verb-initial sentences [90-19] and [91-20] are elaborated. Finally, in [93-21] the introduction of new topic (the boy) marks yet another shift in the choice of clause type. In this case the narrator opts, once again, for an SV clause.

Example (49) is one of many other examples that illustrate the division of labour between VO and SV word order in spoken narratives in this data. This encourages the thought that the choice between VS and SV word order may be one of the reasons why focus on the dynamics of movements more than scene-setting was predominant in the Tunisian narratives. It also suggests that allocating verb-initial sentences to event-information packaging directs TA speakers even more towards including at least one ground information per clause, a conclusion which is consistent with the above results.

The division of labour between SV and VS word-order in TA may also account for why, when the discourse genre is as event-orientated as in the frog stories, Path, Manner and Ground semantic elements become foregrounded. With saliency comes codability to which TA seems to have a pool of means which are not previously discussed in the thinking-for- speaking research tradition.

As well as the word-order hypothesis presented here, the data also reveals that the relative cause and effect relationship between codability and ease/difficulty of cognitive processing at the clause level may not always apply in longer stretches of discourse. In the following section, I explore this hypothesis.

5.6.2. The Coordination-saliency Hypothesis

A second insight that may be used to account for the atypical behaviour of the Tunisian participants in this study relates to compound-verb phrases (i.e. discussed in Chapter 4, section 4.1). This refers to the claim that spoken varieties of Arabic, but not standard Arabic, favours the association of various types of motion verbs within a single clause in order to add various aspectual and semantic nuances to the expression of a motion event. If this rhetorical feature is witnessed in the current Tunisian data, then one may speculate that the relatively atypical attention to manner and path details in the Tunisian narratives may be accounted for in these terms as well.

As such, according to Özçalışkan and Slobin (2003: 259) one of the reasons why V-languages lack Manner and Ground details is that stringing clauses together adds cognitive load to processing. This encourages speakers to re-direct their attention towards other aspects of the narrative (i.e. scene setting rather than dynamics of movement). This cognitive “cost”, they argue, acts as psychological deterrent.

However, the thinking-for-speaking behaviour of Tunisians in this data suggest that this may not be the case. *Syndetic* and *asyndetic* coordination discussed in Chapter 4 with reference to the work of Brustad (2000) are also abundant in the TA data. This suggests that the habit of stringing verbs and clauses together is the norm rather than the exception in TA. I suggest that Slobin’s (2004) claims about the association of embedding and clause coordination with processing load seems to be based on the intuitions of an English native speaker and not that of TA speaker. The TA data show a fairly extensive use of complex verb phrases – a morpho-syntactic feature which has not been reported either for Spanish or English. This mild form of verb serialisation is summarised in Table 5.7.⁶⁴ It lists all the core motion verbs which enter in compound verb phrases together with illustrative examples from the collected data in this study:

⁶⁴ I use the term *mild serialisation* in the sense that up to three motion verbs seem to be licensed by the grammar to combine within a single utterance. Dana (2013) also refers to the concatenation of motion verbs in terms of serialisation. Despite the availability of syntactical tests to determine the extent to which a language may be said to be a serial language (e.g. Aikhenvald and Dixon 2006), I do not explore this avenue further in this study due to space constraints.

Table 5.7: Two- and three-tier Verb Constructions in TA

Semantic notions	Verbs	Examples
come/arrive= next action	<i>mšáé</i>	<i>Ba3d šwayya mšæ rqad</i> after awhile walk.PF.3M sleep.PF.3M 'After a little while, he went and slept' [B-T-40-M/16-54] <i>Šáf noqba f=iš=šajra mšáé tla 'il=háé</i> see.3m.PF hole in=ART=tree go.PF.3M climb.PF.3M=3F.PR '(He) saw a hole in the tree and climbed to it' [G-T-40-M/01-04]
	<i>jáé</i>	<i>Jáew ylawwju: 3=jj=ra:né ma=l=qaw=háé=š</i> arrive.PF.3M.PL 3M.search.PF.PL ON=ART=frog NEG=find.PF.3M.PL '(They) came (they) look for the frog they did not find it' [B-T-40-M/03-12]
	<i>q'ad bqa dáll</i>	<i>Il-kelb k3ad yhib yat13=il=háé</i> ART.dog remain.PF.3M 3M.want.IMPF 3M.climb.IMPF=to=3F 'The dog wants to climb up (to the hive)'
complete= state/motion verbs	<i>tamm</i>	<i>Jfil háék=il=kelb</i> scared.Acc.3M that=ART=dog <i>w=tamm bdé yijri</i> and=complete.3M.PF start.PF.3M 3M.run.IMPF 'that deer got scared and started running' [I-T-40-M/19-104/105]
fall= (getting stuck into doing an action)	<i>ta:h</i>	<i>Ta: h.u: ylawwj.u fid=dbaš</i> fall.PF.3PL 3M.search.IMPF.3PL in=clothes 'Straightaway they got stuck into looking for the frog' [B-T-40-M/04-17]

In short, the word-order hypothesis and the compound-verb phrase hypothesis may explain why attention to manner and path details in a narrative has been described as untypical.

5.7. Summary

In this chapter, I presented the results of elicited data from 13 TA speakers. The primary goal was to establish whether TA may rightfully be categorised as a verb-framed language, given that no previous study has addressed this question. Concomitant with this goal, this study also aimed at describing the TfS habits about motion events in extended oral narratives in TA.

The obtained data has projected a mixed picture. On the one hand, (a) the core feature of a motion event (i.e. Path) is lexicalised in the main verb, (b) TA does not favour the elaboration of both the source and the goal of a trajectory with a single verb, (c) complex verbs expressing 'exiting' and 'entering' bounded spaces seem to be disfavoured, and (d) TA does not allow clause-compacting. These encourage the categorisation of TA as a V-language. On the other hand, TA seems to differ from other V-framed languages in that it offers its speakers a versatile manner verb lexicon, and

that for one particular semantic domain, TA has more types per token than both English and Spanish (as reported in Berman and Slobin 1994). Additionally, the elicited data suggest that Path and Manner details seem to be equally salient for these speakers and that the lack of clause-compacting strategy in TA has little effect on how much ground information is expressed in a narrative. As such narrators are not discouraged from stringing various clauses together to express sources, milestones and goals of a trajectory, and most important of all the participants in this study seem to favour the use of more than one verb in a clause to describe motion events. In brief, Slobin's (1996: 214) claims that "typologies leak" and the evidence reported in this study is a testimony to that.

With the typological status of TA identified and the TfS characteristics of its speakers examined, in my next chapter I report on the findings of a similar study conducted on native speakers of English.

6. Study 2: Thinking-for-English as an L1

At first, investigating the thinking-for-speaking habits of native speakers of English may seem unnecessary. Chapter 3 has discussed in considerable details both the lexicalisation patterns of motion events in English (Talmy 1985) and the TfS behaviour of its speakers (Berman and Slobin 1994, Slobin 1996b). Nevertheless, several caveats must be raised about those studies, which argue for the collection of new L1 English data.

First, Berman and Slobin (1994) did not supply enough raw data to satisfy a comprehensive assessment of English and its speakers. While the supplied data is varied and informative, it is at best very selective and therefore cannot serve the comparative purposes of this study. Second, Berman and Slobin's data (1994) was collected from 48 people of whom only 12 were adults. Since 13 Tunisian subjects are to be compared in this study, there is an element of incompatibility in terms of the number of participants. Third, Berman and Slobin (1994) did not clearly specify which data came from adults and which came from children. Fourth, inter- as well as intra-typological variations have been identified in both Satellite- and Verb-framed languages (e.g. von Stutterheim and Nüse 2003 for German versus English, Hasko 2010 for Russian and English). This suggests that speakers for whom English is an L1 (e.g. American, British or New Zealander) may also show TfS variations. As far as I am aware, no published study has compared how speakers of different varieties of English as an L1 conceptualise and talk about motion events. Given that Berman and Slobin's L1 participants are American college students and the current participants are British, it is interesting to see whether Manner versus Path is treated similarly by speakers of these two varieties of English. Finally, yet most importantly, the phenomenon of semantic coercion –the process by which verbs taken on different meanings due to path particles (e.g. Talmy 1985) or constructions (e.g. Goldberg 1995) discussed with reference to English in Chapter 3 – has not been explicitly explored in TfS studies. Given that this phenomenon is reported to be pervasive in English, determining the extent to which it is so in actual TfS behaviour fills an important gap in thinking-for-speaking research.

Consequently, departing from an assumption that understanding conceptualisation is further improved through having a control group against whom analysis can be carried out, in 6.2.1, I the data collected from the current participants to those reported in

Berman and Slobin (1994). The data corroborates that Manner is as salient for BrE speakers as it is reported for AmE English speakers.⁶⁵ The data also shows that the phenomenon of semantic coercion is as pervasive in the TfS behaviour of the current participants as has been reported in semantic and syntactic studies of English. Analysis of boundary-crossing scenes (6.2.2.), Ground elaboration (6.2.3), and locative fronting (6.2.4) add further weight to the pervasiveness of this semantic phenomenon in *thinking-for-English*.

6.1. Objectives and Hypotheses

The main objectives of this study are to answer the following questions:

1. How do BrE speakers perform when talking about motion events in the frog story? In other words:
 - (a) What types of verbs do they use and how many?
 - (b) How are boundary-crossing scenes attended to and described?
 - (c) How are path satellites distributed within the clause?
2. How pervasive is the phenomenon of ‘semantic coercion’ in the TfS behaviour of these participants?

If typological claims about S-type languages are to be taken seriously, then speakers of different varieties of English must show similar TfS behaviour despite geographical separation. Consequently, I predict that both speakers of AmE and BrE would use (a) a rich manner verb lexicon, (b) make an extensive use of path satellites, and (c) pay detailed attention to ground elements both at clause level and extended journeys. I also predict that due to a reluctant discussion of the process of semantic coercion in thinking-for-speaking studies, differences related to the inclusion of this phenomenon in the analysis will uncover significant TfS variations between both Slobin’s (1996) American subjects, those reported on here and the L1 TA speakers reported on in the previous chapter.

⁶⁵ I would like to reiterate that whilst I use the abbreviation AmE, I refer to the American subjects who took part in Berman and Slobin’s (1994) experiments and not speakers of American English in general. Although the conclusions that may be drawn from this comparative analysis may well have implications for American and British English in general, I mean such conclusions to be tentative rather truth-veridical.

6.2. Methodology

6.2.1. Participants

I have recruited 13 speakers for whom English is a first language, who were born and who have lived in the UK all their lives. I have also ensured that they have a degree of variation in their profiles. As such, seven classroom teachers and one teaching assistant from Glebe Primary School (Southwick, Brighton and Hove, England), one student from Sussex University, two buskers and one artist (working in East Street, Brighton) have been included. These are four males and nine females. In selecting these L1 speakers, I aimed for varied speaker types in order to avoid collecting only performances with particular rhetorical styles. For instance, it could be argued that primary school teachers and teaching assistants may have developed a particular style of storytelling since their job requires them to tell stories to a particular type of audience. By including teachers and non-teachers I can ascertain whether occupation is a noteworthy variable. Table 6.1 introduces the profile and the identification code of each participant:

Table 6.1: L1 BrE Participants

Subject codes	Occupation	Age	Nationality
[A-E-F]	Teacher	41	British
[B-E-F]	Teacher	33	British
[C-E-F]	Teacher	40	British
[D-E-F]	Student	22	British
[E-E-F]	Musician (Busker)	33	British
[F-E-M]	Musician (Busker)	46	British
[G-E-F]	Teacher	32	British
[H-E-M]	Teacher	33	British
[I-E-M]	Artist	48	British
[J-E-M]	Teacher	55	British
[K-E-F]	Teacher	30	British
[L-E-F]	Editor	40	British
[M-E-F]	Teaching Assistant	35	British

6.2.2. Material

As in the previous chapter, in this study I have used the picture book *Frog, where are you?* (Mayer 1969). I have used this material for two main reasons. First, using the same picture book throughout this study allows me to compare the data collected from the different types of speakers in this study and other FLA and SLA studies. Second, as discussed in Chapter 5, the use of wordless picture books is a relevant elicitation tool in that it taps directly on thinking-for-speaking habits about motion.

6.2.3. Procedure

British participants were tested in Brighton and Hove, England. This took place either at the participants' homes, at their workplace (Glebe Primary School), in East Street (Brighton), or at the University of Sussex. It is important to note that the following concessions in how the recordings of the data have taken place. Two participants asked whether they could tell the story to children in their class. One has asked whether she could tell the story to her own children. Another one asked whether she could do the recording herself. Since a number of L1 users demonstrated a degree of unease with being tested formally, these concessions were granted. These fieldwork problems have not been reported in L2 TfS literature. However, Berthele (2009) also reports various kinds of fieldwork problems in FLA research. He claims that he had "difficult encounters with some people in the field who were not at all amused about retelling a story of a children's book to a stranger" (2009: 163-4). He presents a taxonomy of the types of problems that he came across during his data collection. These fieldwork problems were so compelling at times that he confesses he has been tempted to abandon data collection altogether (2009: 165). I did not meet these extreme fieldwork problems. However, I was careful not to put any kind of psychological pressure on my participants and hence undertook the compromises. The question that follows from this is whether these procedural variations in data collection have any noteworthy impact on the results. I can see no evidence in the analysis that they have.

6.3. Results

6.3.1. The 'Motionisation' of Verbs in English

An important point that emerged out of the discussion of the classification of verbs in English is that their meanings tends to be interpreted differently with different arguments structure configurations. It was concluded (section 3.3.4) that the binary distinction between basic and extended meanings (Levin 1993) is useful in pinning down the polysemous nature of English motion verbs.

Accordingly, when the phenomenon of semantic coercion⁶⁶ is taken into account, analysis of the motion verb stock utilised by the current participants revealed that BrE participants have used 66 verbs. Of these 75% were manner verbs and 25% were path

⁶⁶ In a nutshell, *semantic coercion* describes a process whereby verb meanings change due to neighbouring lexical items. I have discussed this phenomenon in section 3.3.

verbs with both categories showing verbs whose meanings are basic and/or extended.

Table 6.2, provides a list of these verbs:

Table 6.2: L1 Motion/ised Verbs (BrE)

Types	Path		Manner		
Semantic properties	[+ Basic]	[-Basic]	[+ Basic] [-Caused]	[+ Basic][+ Caused]	[- Basic]
	stop	be	walk	pick	bark
	reach	get	squat	drop	call
	rise	set	fly	put	shout
	head		lean	take	echo
	leave		run	bring	buzz
	appear		rush	carry	splash
	disappear		race	pull	shoo
	escape		leap	attack	peep
	cross		jump	swarm	peer
	pass		fall	chase	look
	come		climb	hook	smell
	go		bump	toss	knock
	enter		slip	thrust	scramble
	move		kneel	shake	
			turn	stick (something)	
			balance	tip	
			stabilise		
			trot		
			stampede		
			follow		
Subtotal	14	3	21	17	13
Total	Path = 17		Manner = 49		
%	25%		75%		

To elaborate on Table 6.2, consider the following example where participant [C-E-F] describes what the bees are doing in picture 12 of the frog story:

(75) Now all the bees are **buzzing round** [C-E-F/66-12]

In (75), the verb *buzz* expresses a meaning of ‘sound emission’. The satellite *round* express the core semantic component Path. When considered separately, the verb *buzz* expresses an activity in which the bees are engaged but does not express any meaning about the direction or location of the ‘buzzing’ activity. In this sense, the ‘buzzing’ activity does not express the conceptual component Motion. Rather, it is about the emission of a certain sound quality (compare with *roar* or *tweet*, for instance).

However, when considered together with the path particle *round*, the interpretation ‘flying around while buzzing’ obtains. In this respect, the construction [*buzz round*] – but not the verb *buzz* alone – may be said to describe a Motion Event with reference to

its Manner. This way of TfS suggests that the semantic and syntactic unity between the verb and its satellite coerces a manner-of-motion interpretation.

Similarly, consider the verb *knock* in the following extract:

- (76) An owl flew out of one of the holes in the tree, frightening the boy and **knock** him **out** of the tree and **onto** his back.
[A-E-F/40+42-14]

Out of context, the verb *knock* does not express a meaning of Motion in the way typical translocative verbs like *run* and *walk* do. Rather, *knock* seems to describe an activity of *hitting* as in *knock on the door*. Yet, when combined with the satellite *out* as in example (76), there is a sense in which the verb *knock* does not simply describe an activity of ‘hitting’, but rather traces this activity along a certain path (i.e. *down*). The overall image that is projected is that of someone being moved from location A (i.e. *a tree*) to location B (i.e. *out*) by means of a forceful activity (i.e. *knock*). In being part of a verb complex, *knock* does not simply read as an activity of hitting but describes the manner in which a motion event ‘falling out/or being pushed away’ has taken place.

An argument could be made that *knock out* is a *phrasal verb* that should be treated as a lexical item in its own right, in contrast to the simple lexeme *knock*. However, observation of how L1 speakers use the types of constructions under discussion suggests that *knock out* as a phrasal verb is not psychologically supported. Notably, while phrasal verbs are usually thought of as **unproductive**, and therefore are learnt as frozen expressions (Murphy 1983), the way that L1 participants have used these constructions suggests the exact opposite; namely, these lexical sequences are used productively and therefore are best seen as **constructions** (Goldberg 1995, 2013a).

To bring this point into greater relief, consider once again the verb *knock* introduced in extract (76). Here *knock* combines with both the path particle *out* and locative particle *onto*. In this sense, while [*knock out*] describes a trajectory focusing on an entity being displaced from an inner-boundary to an outer-boundary, the path satellite *onto* describes the trajectory followed as a result of the ‘knocking’ activity, namely: its resulting (i.e. contact) location. The verb *knock* therefore accepts both *out* and *onto*: two path particles that express two distinct spatial meanings. This suggests that constructions that contain atypical verbs seem to be flexible enough to accept different path satellites.

Another example that is instructive is (77). In this case, participant [M] describes the fall of the hive off the tree branch. Unlike extract (76), in this case the speaker combines the action verb *knock* with the satellite *down*. The result is that the event being described

here not only express the manner in which the figure (the hive) gets displaced from the tree branch but, more importantly, by using the path particle *down* the speaker expresses that the fall follows a downward Motion:

(77) Oh dear! The naughty dog has **knocked** the hive **down**.

[M-E-F/38-12]

However, in describing the same event, in (78) participant [F] chooses to focus on the separation of the hive from the tree branch rather than the actual trajectory of the fall, as did participant [M]. In this case, the construction [*knock off*] describes an event in which the dog displaces the bees from their initial location (i.e. *the tree*), to different location (*away* from it). This is expressed by means of some forceful hitting activity that causes a disassociation (i.e. *off*) between the Figure (i.e. *the bees*) and its Ground (i.e. *the tree branch*):

(78) The dog **knocks** the bees **off** the tree [F-E-M/42-12]

Consequently, based only on the use of the verb *knock* and its associated satellites *out*, *onto*, *down*, and *off*, one can tentatively conclude that this form of TfS is productive and therefore cannot be dismissed as frozen expressions (i.e. idioms) –an assumption that is sometimes made about these types of constructions in the literature (e.g. Murphy 1983).

The use of non-motion verbs as manner-of-motion verbs is not only **productive**, it is also **preponderant** in the TfS of L1-English speakers. As well as the typical Manner + Motion verbs cited in Table 6.2, BrE participants have used a further 29 different verbs to elaborate on manner and path details. As Table 6.3 below shows, 29 qualitatively different types of verbs been used to describe aspects of a motion event in the frog story. It seems that the case of the verb *knock* as discussed in examples (51) through to (53) has been applied to verbs as different as verbs of ‘perception’, ‘sound emission’, and ‘general action’ and ‘activity’ verbs:

Table 6.3 L1-Br English Motionised Constructions

Category	Verbs	Satellites	Examples
Sound emission	bark	up	The dog tries <i>barking up</i> the tree [E-E-F/30-11]
	shout	down, into	And he <i>shouts down</i> the hole [F-E-M/29-10] Why are you <i>shouting into</i> my house? [33-17]
	call	out, down, into	He is <i>calling out</i> and looking and looking for the frog [K-E-F/19-08] The boy <i>called down</i> a hole [B-E-F/22-10] They called and <i>called into</i> the old oak tree [I-E-M/20-09]
	splash	into	(The little boy) <i>splashed into</i> the water with the little dog following him. [A-E-F/66-22] and he <i>splashes into</i> a big pond [E-E-F/62-22]
	echo	down	So, his voice <i>echoed</i> Fergus, Fergus, Fergus, Fergus (...) <i>down</i> the hole [C-E-F/56-10]
	buzz	round	And now all the bees are <i>buzzing round</i> [C-E-F/66-12]
	shoo	away	The owl wasn't very happy and <i>shooed</i> Freddy away. [J-E-F/40-16]
Perception verbs	look	out, high, low, up, down, over	Freddy <i>looked out</i> of the window [J-E-F/12-05] [19-07] the dog <i>looked up</i> innocently at the boy.
	peer	over	so he climbed upon the rock [88-17] <i>peering over</i> some of the trees [C-E-F/89-17]
	peep	over	They <i>peeped over</i> a log [G-E-F/37-19]
Sense of 'smell' verb	smell	out	I wonder whether he can <i>smell</i> the frog out [M-E-F/33-09]
General Action/activity verbs	knock	out, off, onto, down	<i>Knock</i> him out of the tree and <i>onto</i> his back. [A-E-F/40-14] And the dog <i>knocks</i> the bees off the tree [F-E-M/42-12] Oh dear! The naughty dog has <i>knocked</i> the hive down [M-E-F/38-12]
	hook	up	All of a sudden, an antler came along [53/18] and <i>hooked</i> the little boy up. [A-E-F/54/18]
	thrust	up	The stag <i>thrusted</i> the boy up onto his head [D-E-F/40-18].
	shake	off	and the stag stops at the edge of the hill and [86-20] <i>Shaaakes</i> Callum off his head [C-E-F/87-20]
	put	out	Callum put his <i>head out</i> of the window [C-E-F/27-05]
	bring	down, back	He's jumped up high enough to <i>bring</i> the bees down [C-E-F/72-12] I'll <i>bring</i> him back I promise. [C-E-F/132-28/9]
	pull	off	He <i>pulled</i> it off [C-E-F/115-28-29]
	carry	off	The head of the deer <i>carried</i> Freddy off [J-E-F/46-18]
	stick	in	The dog <i>sticks</i> his head in the jar [C-E-F/34-04]
	drop	into	The stag [...] was running and running until he <i>dropped</i> him into a big ravine [D-E-F/50+51-20].
	toss	over	grabbed him (...) and <i>tossed</i> him over the hill [H-E-M/24/19-20]
	tip	out	In the night, the frog climb out of his jar [05-02] and <i>tipped</i> out of the bedroom [K-E-F/06-02]
	take	over, away	The deer started to <i>take</i> him over a cliff [K-E-F/45-19] So the little boy <i>took</i> the frog away [H-E-M/41-28]
	chase	off	the owl and the bees <i>chased</i> him off [H-E-M/20-14-15]
	pick	up	The stag <i>picked</i> the boy up [B-E-F/35-18]
Self-propelled motion	put	out, down	Callum <i>put</i> his head out of the window [C-E-F/27-05] <i>Put</i> him down [C-E-F/85-19]
	head	back, towards	The boy is <i>heading back towards</i> his house with another baby frog. [F-E-M/92-28/9]
	pop	out	Oops! <i>Out pops</i> an owl [J-E-F/37-14]

Needless to say, the inclusion of verbs like *peep*, *peer*, and *look* in the Table 6.3 needs further discussion. At first, an argument may be raised that the verb *look* [19-07] in ‘the dog *looked up* innocently at the boy’ does not describe a physical motion and that it is not obvious which figure is in motion. However, following the discussion of perception verbs in Chapter 3, ‘motional’ readings of verbs like *see* and *look* obtain when these verbs occur in the same argument structure configurations as normal verbs of motion. The figure in these verbs may be understood in metaphorical terms where ‘vision’ travels through space ‘to a place’ where a recipient is located. If this account is acceptable, then in the utterance *the dog looked up innocently at the boy*, ‘vision’ is a lexically gapped figure that is understood to trace a trajectory from where the dog is (i.e. source location) to the boy (i.e. a target location) following an upward path.

Similar arguments may be constructed for other verbs listed in Table 6.3. The current participants have used verbs of sound emission as if they are motion verbs. For instance, where the verb *bark* (e.g. *The dog tries barking up the tree* [E-E-F/30-11]); *shout* (e.g. *He shouts down the hole* [F-E-M/29-10]); or *call* (e.g. *They called and called into the old oak tree* [I-E-M/25-11]); in all these examples, the interpretation that a Figure (i.e. the voice) is moving in a certain direction, is arrived at by way of implication –through general knowledge. What seems to be implicated in all these utterances is the different directions the implied figure is following in this event: namely an ‘upward’ direction for the case of *bark*, a ‘downward’ direction for the case of *shout*, an ‘into’ direction for the case of *call*.

Given that the above analyses has documented the psychological pervasiveness of the phenomenon of semantic coercion in the TfS behaviour of the current participants, it is imperative that such a phenomenon is given its due recognition as a significant aspect of TfS in English. For want of a term that describes the TfS behaviour as observed in this study, I propose the term ‘**Motionisation**’ and its derivative ‘**to motionise**’ to refer a TfS behaviour in which ‘typical’ and ‘atypical’ verbs of motion enter a conceptual unity with path satellites and locative expressions to describe a ‘Motion Event’.

According to the view adopted here, a *motionised construction* performs one of two TfS functions. It may add more elaborate Manner-of-motion details to the description of an event, as in the case of ‘sound emission’ verbs. Alternatively, when the main verb is semantically weak as (e.g. *get*, *be*, *set*) motionised constructions brings path information into greater focus. From this follows my proposal that motionisation should be seen as a **cognitive/conceptual manipulation** that L1 speakers of English seem to capitalise on

when elaborating various aspects of motion events (i.e. Manner, Path or Cause of Motion).

Crucially, the term *motionisation* denotes the active involvement of a speaker in manipulating core schemas and their associated constructions to fulfil ‘on-line’ TfS demands characteristic of native speakers of English. A focus on the **dynamic** aspect of conceptualisation is different from the intended theoretical underpinnings behind the terms semantic *coercion* and *accommodation*. These terms, it seems to me; refer to a *language-internal process* distinct from TfS behaviour.

In this respect, the theoretical underpinnings of motionisation is similar to what Cadierno (2004) called ‘satellization’. In this view, ‘satellization’, (as I understand it), describes the *overuse* of path satellites by native speakers of English learning a verb-framed language like Spanish. Although ‘satellization’ also has the language user in mind rather than the grammatical system itself, it differs from *motionisation* in that the focus in the former is on closed-class elements (i.e. spatial particles), while the focus here is on both open-class and closed-class elements. These are treated as instantiations of an abstract conceptual schema, namely: $M_{-ised}[V]$. In this sense, an important aspect of *motionisation* which ‘satellization’ does not seem to mirror is that motionisation is a **productive** process which allows speakers to capitalise on a single schema in order to code and decode endless types of constructions describing Manner-, Path-, and Cause-related motion meanings.

When the current results are compared to those reported for AmE native speakers TfS differences reflecting methodological differences are obtained. Notably, when the same classification procedure of Table 6.2 are applied onto Berman and Slobin’s data (1994: 198), the results that AmE speakers have used fewer motion verbs overall (i.e. 45 motion verbs compared to 66 in this data). However, a closer inspection of these differences show that attention to Manner versus Path is similar for the two groups. As such, AmE participants have used eight path verbs and 21 manner verbs whose meanings are basic. They have also used eleven manner verbs that describe causative motion, only four verbs with an extended manner meaning, and only one verb with an extended path meaning. Table 6.4 summarises these results. It shows that the level of attention to Manner versus Path in speakers of these two varieties of English is the same, namely 80% and 75% for manner verbs and 20% and 25% for path verbs for BrE and AmE respectively:

Table 6.4: Motion Verbs in AmE Narratives (Adapted from Slobin 1996b: 198)

Types	Path		Manner		
Semantic properties	[+ BASIC]	[-BASIC]	[+ BASIC] [- CAUSED]	[+ BASIC] [+ CAUSED]	[- BASIC]
	come	get	hide	carry	knock
	escape		bump	dump	buzz
	leave		climb	drop	splash
	head		creep	push	splat
	land		crawl	throw	
	move		wander	take	
	go		walk	tip	
	depart		float	make.fall	
			fly	swoop	
			hop	chase	
			jump	follow	
			pop		
			plummet		
			fall		
			buck		
			run		
			rush		
			slip		
			sneak		
			tumble		
			limp		
	8	1	21	11	4
Total	9		36		
	20%		80%		

Comparing the results in Table 6.2 and Table 6.4, the most notable difference lies in the category of caused-motion verbs (17 verbs to 11) and verbs whose meaning is extended either in terms of Path or Manner. It is important to remember that the differences projected in Tables 6.2 and 6.4 are a consequence of a more liberal approach to the analysis of motion verbs than the one adopted by Berman and Slobin (1994).

So far, the main evidence for the pervasiveness of the proposed process of motionisation came from analysis of the lexis L1 English speakers used in this experiment. However, the importance of this conceptual manipulation in the TfS of L1 English speakers can be further evidenced in the description of boundary-crossing situations – the subject matter of the next subsection.

6.3.2. Boundary-Crossing in L1 Thinking-for-Speaking

Boundary-crossing is the second parameter of variation between Satellite- and Verb-framed languages. In order to understand how L1 speakers of English express motion events in these highly specific situations, I have selected and analysed three boundary-crossing scenes from the frog story. These are:

- The Jar Scene: when the frog jumps **out** of the jar (picture 2)
- The Owl Scene: when the owl pops **out** of the hole (picture 12)
- The Window scene: when the dog falls **out** of the window (picture 6)

In analysing the results, I take into consideration the following factors:

- i. Whether the participant made any comment about the boundary-crossing event in question
- ii. Whether bare path verbs have been used (e.g. *come*, *go*, *enter*, *exit*)
- iii. Whether path verbs plus satellites have been used (e.g. *come out*, *go into*)
- iv. Whether, manner verbs with no satellite have been used e.g. (*climb*)
- v. Whether, manner verbs plus satellites (i.e. target constructions) have been used, e.g. (*climb out*, *run out*)

In *The jar scene*, for instance, the participants overwhelmingly described the motion of the frog by means of a complete motion construction – namely a manner verb plus a boundary-crossing satellite (i.e. [M_{manner} V_{erb} + *out*]). This is in line with what is predicted for S-language speakers (Slobin 1996a). Table 5.5 provides examples from each participant:

Table 6.5: L1 Boundary-Crossing (*The jar scene*)

Sub/ID	Verbs	Examples	N/C	B/V	M/V + Sat	P/V + Out	M/V + Out
[A-E-F]	creep out	The frog decided to escape from the jar and he quietly <i>crept out</i> [12+13-02]	-	-	-	-	+
[B-E-F]	creep out	When he went to sleep the frog lifted the lid and <i>crept out</i> [04+05-02]	-	-	-	-	+
[C-E-F]	sneak out	The frog sees Callum is a sleep , and decides he's gonna <i>sneak out</i> (..) the jar [14+15-02]	-	-	-	-	+
[D-E-F]	climb out	During the night, the frog decided he wanted to go So he <i>climbed out</i> of the window [06+07-02]	-	-	-	-	+
[E-E-F]	escape	He gets up [09-02] and he <i>escapes</i> from the jar. [10-02]	-	+	-	-	-
[F-E-M]	climb out	The boy and the dog go to bed. At which point, the frog <i>climbs out</i> of the jar[06+07-02]	-	-	-	-	+
[G-E-F]	creep out	In the middle of the night, the frog <i>crept out</i> of the jar [05-02]	-	-	-	-	+
[H-E-M]	leap out	The frog <i>leapt out</i> the jar and run off into the night [06+07-02]	-	-	-	-	+
[I-E-M]	be off	During the night, the little frog thought "that twat didn't put the lid on!" Bag this! <i>Am off</i> [03+04+05-02]	-	-	+	-	-
[J-E-F]	jump out	Whilst Freddy slept soundly the little frog <i>jumped out</i> of the jar and disappeared [05+06+07-02]	-	-	-	-	+
[K-E-F]	climb out	In the night, the frog <i>climbed out</i> of his jar, and tipped out of the bedroom [05+06-02]	-	-	-	-	+
[L-E-F]	climb out	Whilst he's sleeping, the frog is <i>climbing out</i> of the jar [08+09-02]	-	-	-	-	+
[M-E-M]	creep out	Just as he goes to sleep, the frog <i>creeps out</i> of the jar [05+06-02]	-	-	-	-	+
Total			0	1	1	0	11

N/C= No Comment; B/V= Bare Verb; M/V + Sat= Manner Verb + Sat; P/V + Out= Path Verb + out; M/V+ Out = Manner Verb + out.

As Table 6.5 shows, 11 of the 13 participants have used a [$M_{\text{anner}} V_{\text{erb}} + S_{\text{atellite}}$] construction to describe the movement of the frog from the inner boundary of the jar to its outer boundary. These verbs varied from prototypical (i.e. common) manner verbs like *climb*, and *jump*, to fine-grained manner verbs like *creep*, *sneak*, and *leap*. Most importantly, L1 participants have combined these motion verbs with the path particle *out* to mark the crossing of the jar boundary. One participant has expressed the escape of the frog by motionising the stative *be* by means of the satellite *off*. Only one participant has used the path verb *escape* without a satellite.

At issue in *The owl scene* is whether the narrator expresses the emergence of the owl from the hole in the tree by means of motionised constructions. Following the norms in satellite languages, narrators are expected to use typical motion verbs like *fly* or *jump* with the path particle *out*. They may also use a motionised verb like *pop*. As Table 6.6 shows seven of the participants have used manner verbs like *fly*, *jump*, and *pop* to describe the emergence of the owl from within the inner boundary of the hole. However, three participants have used the deictic path verb *come* together with the satellite *out*. This result still shows that these speakers opt for a motionised construction even though Manner is not incorporated in the verb on this occasion.

Notably, recall that in describing the same scene, L1 speakers of TA have overwhelmingly used path-incorporating verbs like *hraj* ‘exit’ and *ja* ‘come’ without satellites. No motionised verbs have been recorded for these speakers even though TA does not prohibit the use of path/manner verbs with locative particles like *out* (*side*). In this respect, the construction [*come out*] seems to be an important linguistic means that L1 speakers of this language capitalise on when Manner is not in focus.

Table 6.6: L1 Boundary-Crossing (*The owl scene*)

Sub/ID	Verbs	Examples	N/C	B/V	M/V + Sat	P/V + Out	M/V + Out
[A-E-F]	fly	An owl <i>flew out</i> of one of the holes in the tree frightening the boy [47+48-14]	-	-	-	-	+
[B-E-F]	jump out	The boy fell backwards as an owl <i>jumped out</i> of the hole [29+30-14]	-	-	-	-	+
[C-E-F]	pop out	The owl <i>pops out</i> [83-14]	-	-	-	-	+
[D-E-F]	come out	The big owl <i>came out</i> from the tree. [39-14]	-	-	-	+	-
[E-E-F]	come up	The owl <i>came up</i> and shooed [41+42-14].	-	-	+	-	-
[F-E-M]	N/C	He's been startled where he was looking is a large owl is very angry The boy is running away. [51+52+53+54+55+56-16]	+	-	-	-	-
[G-E-F]	come out	In the tree <i>came out</i> an owl	-	-	-	+	-
[H-E-M]	N/C	The little boy climbed up to look at the tree [24+25-13]	+	-	-	-	-
[I-E-M]	fly out	Just when the owl <i>flew out</i> and little Timmy fell down the tree [...] [29+30-14]	-	-	-	-	+
[J-E-F]	pop out	Oops! <i>Out popped</i> an owl [37-14]	-	-	-	-	+
[K-E-F]	pop out	And he gets a bit of surprise because <i>out pops</i> an owl [32+33-14]	-	-	-	-	+
[L-E-F]	pop out	Oh! An owl <i>pops out</i> [44-13]	-	-	-	-	+
[M-E-M]	come out	The boy looks in a tree and an owl <i>came out</i> [29+30-11]	-	-	-	+	-
Total			2	0	1	3	7

N/C= No Comment; B/V= Bare Verb; M/V + Sat= Manner Verb + Sat; P/V + Out= Path Verb + out; M/V+ Out = Manner Verb + out.

The window scene is most interesting since it is not clear whether the motion event to be described – namely the fall of the dog – necessarily involves a clear-cut boundary-crossing event. The picture in question (number 5) shows the boy leaning out of the window while the dog is sitting at the window ledge. The dog seems to be located halfway across the inner and outer boundary of the window ledge. He seems to be struggling to get his head out of the jar and hence the fall which follows in picture 6. What is interesting, therefore, is whether the participants would see the fall initiated from a three-dimensional space so that a boundary-crossing motion is described or whether they would see it in a two-dimensional space so that the description does not include the path particle *out*. Seen from this perspective, since this scene is not as biased towards a boundary-crossing description as the jar scene, the way these narrators respond to such a stimuli is potentially significant.

The results show seven participants have conflated Manner and Motion meanings in verbs like *jump*, *fall*, and *slip* and have combined them with the satellite *out* as follows:

- (79) The dog **jumped** *out* of the window. [D-E-F/21-06]
- (80) The dog who had been wearing the jar, **slipped** *out* of the window.
[B-E-F/09+10+-06]
- (81) As they were looking the dog **fell** *out* of the window.
[H-E-M/14+15-06]

Extract (82) provides an interesting example. Here [J] uses neither a boundary-crossing satellite nor a path satellite of any kind. Instead, [J] uses the manner verb *fall* together with the manner gerund *tumbling* to add even more Manner to the description:⁶⁷

- (82) Oops! All of a sudden, Peppy *fell* **tumbling** to the ground.
[J-E-F/17-06].

Table 6.7 provides a summary together with concrete examples from each participant:

⁶⁷ The literature does not agree whether the verb *fall* expresses Manner or Path. Slobin (1996a) and many of his followers (e.g. Cadierno 2010) consider it Path, while others (e.g. Zlatev and Yanklang 2004) treat it as a Manner verb.

Table 6.7: L1 Boundary-Crossing (*The window scene*)

Subject ID	Verb	Examples	N/C	B/V	M-V + Sat	P/V + Out	M/V + Out
[A-E-F]	fall	It made him heavier and <i>fell out</i> of the window [29+30-06].	-	-	-	-	+
[B-E-F]	slip	The dog {who had been wearing the jar} <i>slipped out</i> of the window [09+10-06].	-	-	-	-	+
[C-E-F]	fall	His dog {...} <i>falls out</i> of the window with Jar in his head [40-06]	-	-	-	-	+
[D-E-F]	jump	The dog <i>jumped out</i> of the window [21-06].	-	-	-	-	+
[E-E-F]	N/C		+	-	-	-	-
[F-E-M]	fall	Actually, he <i>falls off</i> the window ledge. [18-06]	-	-	+	-	-
[G-E-F]	N/C		+	-	-	-	-
[H-E-M]	fall	As they were looking, the dog <i>fell out</i> of the window, and the glass went smash [14+15-05] [16-06]	-	-	-	-	+
[I-E-M]	fall	Oh dear! Bobby <i>fell</i> . [17-05]	-	+	-	-	-
[J-E-F]	fall	Oops! All of a sudden, Peppy <i>fell tumbling</i> to the ground [19-06].	-	-	+	-	-
[K-E-F]	N/C		+	-	-	-	-
[L-E-F]	fall	All of a sudden, the dog <i>falls out</i> of the window [20-06]	-	-	-	-	+
[M-E-M]	fall	The dog <i>falls out</i> of the window [17-05]	-	-	-	-	+
Total			3	1	2	0	7

N/C= No Comment; B/V= Bare Verb; M/V + Sat= Manner Verb + Sat; P/V + Out= Path Verb + out; M/V+ Out = Manner Verb + out.

Although the results showed fewer participants using Manner-based constructions, these results are nevertheless quite significant. They show that even in the case of a relatively less typical boundary-crossing situation, Manner via boundary-crossing is very much salient for these speakers.

To sum up this section, analysis of the three boundary-crossing scenes shows that L1 speakers are encouraged to elaborate manner information in boundary-crossing situations. Across the three scenes, L1 speakers tended to predominantly use **Manner-based** motionised constructions. As for those who may not have acted in this way, the tendency was to use **Path-based** motionised constructions based on the satellite *out*. As well as boundary-crossing events, L1 speakers of English make use of motionisation when attending and describing ground elements in their narrative behaviour. This is taken up next.

6.3.3. The Elaboration of Grounds

A major assumption in typological and TfS studies is that S-language speakers are encouraged to focus on ground elements (Berman and Slobin 1994, Slobin 1996b, 2000). This assumption is motivated by two grammatical facts about English. First, the abundance of path satellites in this language encourages the elaboration of trajectories and the grounds they are associated with (e.g. he runs down/up **the road**). Second, English licenses the “stacking” of spatial prepositional phrases within a clause (e.g. *He ran out of **the house**, across **the street**, into down **the store***).

However, we also saw in Chapter 3 (section 3.1.3) that a defining criterion of satellites is that they are relatively free to subcategorise for (i.e. require) an object nominal or not. This suggests that – as far as the grammatical system is concerned – speakers are not always obliged to include ground elements when they use motionised constructions. What remains to be seen, therefore, is whether –when TfS –the abundance of spatial particles influences the elaboration of ground information.

Before proceeding to the analysis, it is important to remind ourselves of Slobin’s (1996b) parameter of minus-versus plus-ground clauses, discussed in section 2.2.3. Minus-ground clauses have no explicit reference to ground elements and include either bare verbs like *run* or complex verbs like *run out*. Plus-ground clauses include at least one ground (e.g. *He ran out of **the house***). The current L1 participants used 408 motion verb clauses. Out of these 124 clauses (30.39%) were minus-ground while 281 (68.87%) were plus-ground clauses.

While the above statistics are informative, a quantitative analysis alone may not reveal all about the TfS behaviour of these speakers. What is needed also is a qualitative analysis that explains how these participants express ground elements. To this extent, further analysis of the L1 data shows L1 participants seem to adhere to specific ways of introducing *Sources* and *goals* of motion. These recurring patterns are clearly different from the ones L1 speakers of TA (Chapter 4) tend to use.

For instance, section (6.3.2) showed that L1 English speakers tend to use the following schema to express boundary-crossing: $M_{-(ised)}[V_{erb} + out]$.⁶⁸ However, when introducing source information, a prepositional phrase headed by the preposition *of* usually follows this boundary-crossing construction. The systematic nature of this TfS behaviour can be seen in the examples listed in (83):

⁶⁸ $M_{otion-(ised)}[V_{erb} + out]$

- (83) a. The dog [...] slipped **out of** the window [B-E-F/09-06]
 b. And fell **out of** the window [A-E-F/24-06]
 c. His dog...falls **out of** the window [C-E-F/31-06]
 d. The dog jumped **out of** the window [D-E-F/16-06]
 e. The dog fell **out of** the window. [G-E-F/11-06]
 f. Poor George the puppy has fallen **out of** the window, hasn't he?
 [K-E-F/21-06]
 g. The dog falls **out of** the window [L-E-F/14-06]

The extracts in (83) show that *out of* is consistently used in order to introduce the Ground element *window*. These speakers seem to adhere to a common abstract schema⁶⁹, namely: $M_{(ised)}[V_{erb} + [out + [of + G_{round}]]]$. This type of schema is not shared by L1-TA speakers. As Chapter 3 showed, L1-TA speakers introduced the window by means of the preposition $\square min$ 'from' plus the nominal *šabbæk* 'window'. This suggests that for this particular scene the abstract schema that could be proposed for L1-TA speakers would be $[B_{are} M_{otion} V_{erb} + from + G_{round}]$.

As well as $M_{(ised)}[V_{erb} + [out + [of + G_{round}]]]$ schema, L1-BrE participants also show a tendency to use the path satellite *off* to mark the departure of a figure from a *source* location. Unlike the case of *out of*, though, when using the spatial particle *off*, ground nominals are usually left uncoded. Using Talmy's (2000) terminology, elements that are not expressed lexically are 'gapped'. Just like in the *[out-of]* construction, the satellite *off* also combines with a second path satellite in the construction. The ultimate result is a two-step description of the trajectory. The first step is initiated by means of the satellite *off*, marking in this way the onset of motion whose source remains gapped. The second step is initiated by means of the satellite *into* to introduce the end/goal of the motion event:

- (84) a. So they went **off into** the woods [A-E-F/28-08]
 b. and run **off in-to** the night [H-E-M/07-03]
 c. they set **off in-to** the woods [H-E-M/ 20-08]

A general schema may also be proposed for this type of TfS behaviour. The schema $M_{(ised)}[V_{erb} + [off + [into + G_{round}]]]$ elaborates the *source* and the *goal* of a trajectory. This schema differs from the $M_{(ised)}[V_{erb} + [out + [of + G_{round}]]]$ schema in the sense that while the *source* is gapped, the goal of motion is coded (e.g. *the woods*, *the night*). It is also important to note that in elaborating this schema, participant [G] has used

⁶⁹ A schema emphasises the conceptual nature of the phenomenon under discussion. A construction refers to linguistic analysis to the exclusion of the speaker. Put differently, the term *construction* is a theoretical construction traditionally used in grammatical descriptions. Schemas are theoretical constructions traditionally used to describe conceptualisation.

different ground nominals and different types and qualities of verbs. The verb *went*, for instance, conflates Motion with Path while *run* conflates Motion with Manner. *Set*, however, primarily encodes Action and only encodes Motion through its concatenation with path satellites. In this sense, it may be said to be an atypical motion verb.

Further inspection of L1 data shows that L1 speakers in this study have capitalised on this $M_{-(ised)}[Verb + off] + [P_{article} + Ground]$ schema in different ways. As extracts (60a) through to (60e) show, the participants have also combined the satellite *off* with *down*, *onto*, *towards* and *back*:

- (85) a. Freddy went tumbling **off** and **down, down** the ground [J-E-F/46-20/21]
 b. Freddy went **off towards** the tree, which had a hole [J-E-F/30-13]
 c. He fell **off on-to** his bum on-to the floor [E-E-F/39-14]
 d. then they go **off towards** the wood ... [L-E-M/17-08]
 e. Him and peppy set **off back** home, [J-E-F/ 62-28/29].

However, the tendency to gap source locations when the satellite *off* is used is easily overridden when the speaker wants to focus on the source of a certain event. In extract (61), for instance, rather than focusing on the goal of the trajectory, as has been the case in the above examples, Participant [A] prefers to focus on the *source* of the fall. First, [A] uses the particle *off* to mark the lack of contact between the boy and the head of the stag and then adds the boundary-crossing particle *out* to indicate that the boy has crossed the boundary and therefore is on his way to land somewhere:

- (86) The little boy fell *off out* of his antlers [A-E-F/ 52-20/1]

Interestingly, despite the availability of clause-compacting means (Talmy 1985), L1 participants did not capitalise on the grammatical prerogative that their grammar offers. The results show only five examples of plus-ground clauses where more than one nominal is attached to the main verb. However, only two of these examples (namely (87a) and (87b) below) express what Ibarretxe-Antuñano (2004) calls a ‘complete path’ – namely, where both a *source* nominal and *goal* nominal are attached to the main verb. The rest generally express the goal and/or milestone, as follows:

- (87) a. *Source + Goal*:
 e.g. Knocked him _{G1}[out of the tree] and _{G2}[onto his back]
 [A-E-F/42-14]
- b. *Source + milestone + Goal*
 e.g. ran _{G1}[from the garden] _{G0}[out] _{G2}[into a nearby field]
 [D-E-F/20/08-9]
- c. *Source + Milestone*
 e.g. walked _{G1}[out to the garden] and _{G2}[down the lane]
 [C-E-F/37-08]
- d. *Goal (Manner) Goal (Location)*
 e.g. He fell _{G1}[onto his bum] _{G2}[onto the floor] [E-E-F/39-14]
- e. *Milestone + Goal*
 e.g. The boy and the dog fell _{G1}[over the top] _{G2}[straight into a
 muddy swamp] [B-E-F/43-20/1]

The cognitive import of Path in L1 English speakers can also be seen in the way speakers manipulate word order to draw more attention to path information in their narratives.

6.3.4. Path Saliency: The Fronting of Spatial Particles

The saliency of path details in the minds of native speakers can be seen in what may be called *satellite fronting*.⁷⁰ This refers to a process where path particles like *off*, *out*, and *down* are placed at the beginning of a clause in order to draw more attention to particular portion of a trajectory within the overall motion event. To illustrate, consider examples in (88), (89) where participants [C] and [J] have consistently inverted the satellite *off* either with the subject in imperative clauses or with the path verbs in declarative ones:

- (88) a. *Off* you go! [C-E-F/68-14]
 b. The owl says to Callum: “*Off* you go!” [C-E-F / 71-16]
 c. *Off* goes Sausage [C-E-F/110-28]
 d. *Off* goes Callum [C-E-F/ 114-28]
- (89) *Off* he went, to be back into a jam jar. [J-E-/48-28]

The fronting of path satellites can also be seen in the following extracts where participants [K], [E] and [J] have inverted *out* and *pop* on three different occasions to

⁷⁰ Please note I have not discussed this rhetorical style in my literature review simply because, as far as I am aware, the TfS literature is devoid of any discussion –let alone mention –of this linguistic phenomenon. As stated Slobin dismisses it as an incidental phenomenon but my data shows otherwise. I have coined the label Path saliency because the fronting of satellites adds to the repertoire of structures L1 speakers use to highlight one aspect of a motion event (e.g. Path) over another (e.g. Manner or Cause).

express the sudden and unexpected appearance of three different figures from three different locations, namely: a hole in the ground (90); a hole in a tree (91); and, a deer from behind a rock (92):

- (90) He gets a bit of a surprise because *out* pops a mouse. [K-E-F/36-14]
- (91) Then suddenly, *out* pops a deer. [K-E-F/39-18]
- (92) Oops! *Out* popped an owl. [J-E-F/ 34-14]

The fronting of spatial particles can also be seen in (93). In this case, participant [D] combines an adverb of place (*further*) with the directional satellite *into*. These then are inverted with the deictic verb *go* as follows:

- (93) *Further into* the forest, he went [D-E-F/28-12]

To continue the exemplification, participant [H] has also fronted the satellite *down* in order to profile the trajectory of motion. In (94), for instance, the path particle *down* is duplicated. This seems to add to the intensity of the fall. The repetition of *down and down* seem to project an image of a long, downward drop:

- (94) *Down and down*, the boy and the dog *fell* [H-E-M/ 33+34-20]

The current data contradicts the claims of Berman and Slobin's (1994). Based on their data collection, they reported that locative fronting is not pragmatically motivated and that neither English children nor adults favour this type of construction (1994: 171). They further claim that on the very few occasions that that adults use locative fronting, they do so by preposing entire "locative prepositional phrases followed by a very marked, literary sounding VS word order" (1994: 171). The tendency was to introduce a new object or participant into the narrative rather than to draw more focal attention to path segments. The following examples taken from Berman and Slobin (1994: 171) illustrate their point:

- (95) *Out of the reeds* come some baby frogs that obviously are little baby frogs and his frog's wife.
- (96) Then, they go in the water. And *behind that log* is frogs.
- (97) They're looking over on the other side... *on the other side* are two frogs.

However, that seven different participants have used this TfS strategy to profile path segments – a behaviour that was not paralleled by L1 TA speakers – suggests that *locative fronting* is yet another a **conceptual manipulation** that may be added to the repertoire of expressive options available to L1-English speakers. By fronting satellites/path-specifying prepositions and their objects, the speaker can only mean to bring into focus a segment of the event he/she deems important.

As a grammatical feature, “fronting” is not the prerogative of any one language (Ballard 2001: 150). According to Ballard (2001: 150), whenever it is used, speakers tend bring to the forefront of attention that portion of information they deem more important to the communicative utterance. The question of why a few participants in this experiment capitalised on the conceptual manipulation of locative fronting while those of Berman and Slobin (1994) did not cannot be answered. Could this TfS behaviour be consequence of the participants’ personal rhetorical styles? Could it be that only teachers would use such a strategy when telling a story? This is possible. However, notice that the above illustrations were taken from seven different narratives. For the purposes of this analysis, though, the fronting of satellite seem to be yet another pragmatic device that L1-BrE speakers tend to use to make information about paths and location even more salient when describing motion events.

6.4. Summary

This section has presented a quantitative and qualitative analysis of the TfS behaviour of 13 L1 speakers of British English from the Brighton area. The experiment was based on the assumption that the English variety these L1 participants speak is indeed satellite-framed. Based on this assumption, I expected their linguistic behaviour to be consistent with what has been reported in Talmy (1985), Berman and Slobin (1994) and Slobin (1996b). This has materialised. More importantly, important TfS behaviour have been identified. As observed by Talmy (1985), Levin (1993), and Goldberg (1995, 1996, 2007) a characteristic feature of English syntax is that it licenses the coercion of motion meanings into main verbs as soon as a directional particle teams up with the main verb in a clause. The collected data showed semantic coercion to be used quite preponderantly. The term **motionisation** was coined to refer to a TfS activity in which L1 speakers concatenate various types of verbs and path expressions to add manner and/or path information to the motion event being described. This includes adding directional meanings to manner verbs that do not inherently express direction or do so quite remotely (e.g. compare *climb/run* versus *climb up/down* and *run off/out* respectively). Motionisation is also used to add even more path meanings to prototypical directional verbs (e.g. *came in/out*). The pervasiveness of motionisation in L1 TfS also surfaced in the way Grounds were elaborated (i.e. the use of two-tiered path constructions) and path expression were fronted. What remains to be seen is whether the

TfS of L2 English speakers show similar characteristics. This is the subject matter of the next chapter.

7. Study 3: Thinking-for-English as an L2

7.1. Background: The Place of English in Tunisia

I start this section with a brief introduction to the status of English in the Tunisian educational system because this has a direct bearing on the profile of the L2 participants taking part in the following study.

English is the fourth language in Tunisia after Standard Arabic, Tunisian Arabic, and French. Academically, English is introduced to learners after Standard Arabic and French. Although English is currently taught as early as year three in private primary schools (nine years old), in state schools it is introduced to all learners in year seven (13 years old). When learners reach year nine, they choose between two main areas of study: Humanities and Languages or Science. Usually learners would opt for a field of study that reflects their best performances. Entry to universities requires a pass in the national Baccalaureate exam (roughly equivalent to GCSEs in England). If a student achieves a good score in a particular subject, he/she will be offered a university place on that basis. This suggests that for learners who want to become teachers of English, a pass is usually required in this exam. The same is also true for other languages, including Standard Arabic, French, German, and Italian.

For students of English, English is the main language of instruction during the four years of undergraduate learning. Once graduated, students are usually recruited by the Ministry of Secondary Education of Tunisia to teach English in state schools. Students who are more ambitious and more confident in their target language abilities often continue their postgraduate studies in a specialist field (literature, linguistics, British or American civilisation).

7.2. Objectives and Hypotheses

Analysis of Tunisian Arabic narratives showed that the Path lexis (see Table 5.2) and Manner lexis (see Table 5.3 and 5.4) used to describe events in the frog story was varied both in terms of types and tokens.⁷¹ The findings of Study 2 (i.e. Chapter 7) suggested that motionisation is an important TfS behaviour of L1 English participants. Therefore,

⁷¹ Recall the comparison was carried out against Berman and Slobin's (1994) data. Table 3.2 shows 45 motion verbs.

it is interesting to see whether the L2 speakers capitalise on the use of spatial particles in a way that may suggest that they have internalised this TfS strategy. Evidence can be sought in boundary-crossing situations. It is expected that L2 speakers should use Manner-based motionised constructions. However, the interesting point is whether L2 participants do so by means of (a) a motion verb and a boundary-crossing satellite (i.e. *out of*), (b) a monolexemic verb (e.g. *jump*), (c) a verb and a satellite marking aspects of direction other than boundary-crossing (e.g. *run away* instead of *run out of*).

Evidence of motionisation can also be sought in how sources and goals are elaborated. If L2 participants have not internalised motionised constructions, it is possible that they would use more minus-ground clauses than over plus-ground clauses in their narratives. It is also possible that clause-compacting strategies to be very sporadic, if at all used.

7.3. Methodology

7.3.1. Participants

The L2 participants are 13 advanced speakers of English whose mother tongue is Tunisian Arabic. They work as teachers and lecturers in the department of English at a university in Tunisia. They teach content courses (literature, civilisation, linguistics) in English to future English language teachers. Consequently, the level of proficiency in these participants should rate as **advanced** and/or **very advanced**. Of course, the concept of **advanced** and their associated terms **competent** and **proficient** are controversial. Precisely, the question of how to measure proficiency remains open-ended. Do we measure proficiency in relation to a native speaker model? Alternatively, do we measure proficiency in relation to the immediate needs of the language learner?

In this thesis, both measures apply. A high level of target language knowledge is expected in teachers of English as a second language (Braine 2010). It is also the case that competence and proficiency are defined with reference to native speaker models usually associated with American and British English (Kachru 1985, Braine 2010). Pending further discussion in Chapter 8, at this stage I consider the knowledge of English these participants have as advanced and/or very advanced for the following reasons:

- (a) They are all qualified English language teachers.
- (b) Three participants have an MA degree in a specialist field (Literature; British or

American Civilisation; Linguistics). Five are PhD holders and five are BA holders in English language and literature. Of the five PhD holders, four have graduated from British or American universities.

- (c) They all work in an English department at university level.
- (d) English is their main medium of instruction.
- (e) They have been speaking English for an average of 19 years.
- (f) Of the 13, two have lived in the UK for at least four years, another two have lived in the US for at least two years, and another four have been on placement courses in the UK for at least two months.

In short, although English tends to be a fourth language for most Tunisians, for these participants it is a second language. Notably, participants reported that they would consider themselves most proficient in English after Tunisian Arabic. Further evidence of the levels of proficiency may be gleaned from the profile of each participant summarised in Table 7.1:⁷²

Table 7.1: L2 Participants

Subject ID	Qualifications and field of expertise	Teaching Experience (years)	Length of stay in the UK/US
[A-T-M]	Tutor in reading and reading skills	7	1 month
[B-T-M]	Lecturer in Literature	17	1 year and 2 months + regular trips to UK during the Summer holidays
[C-T-M]	Tutor in Grammar	25	0
[D-T-M]	Tutor in Grammar and Morphology	13	0
[E-T-M]	Lecturer in Linguistics	20	4.5 years (on and off)
[F-T-M]	Tutor in Business English	11	1 month
[G-T-M]	Tutor of Grammar and Comprehension	7	0
[H-T-M]	Lecturer in literature	10	2 months UK, 2 months USA
[I-T-M]	Tutor in language skills and translation	17	1 year and two months
[J-T-M]	Tutor in Linguistics	3	0
[K-T-M]	Lecturer in Literature	7	0
[L-T-M]	Lecturer in Linguistics	6	6 years
[M-T-F]	Tutor Civilisation	16	2 months

⁷² Perhaps it would have been useful to measure the teachers' proficiency levels. However, I deliberately avoided that because I was not sure how my participants would react. In any case, as is clearly seen through the recordings, most participants were quite fluent narrating the story and hence make a strong case for rating these participants as advanced.

7.3.2. Material

The frog story was also used as an elicitation tool in this experiment so that the comparative objectives of this study are met.⁷³

7.3.3. Procedure

I had expected possible difficulties in persuading subjects to take part in my experiment, in that I reasoned they probably would not want to participate in an activity that is clearly a test of their knowledge of English. This materialised when I approached the first participant. In order to overcome this hurdle, some concessions were necessary. For instance, I had to offer these participants the story to look at ahead of time. I also gave the option to participants to either record themselves (while I waited close by) or have me record them. This was necessary in order to minimise issues of confidence and encourage these L2 speakers to participate in this study. These concessions seem to have had no consequences. As the following analysis shows effects of L1 on L2 is apparent in all the participants regardless whether the recording has taken place in my presence or not.

7.3.4. Coding

In coding the data I adopted the same procedures used in Study 2.

7.4. Results

7.4.1. Motion Verbs

In describing the events in the frog story, L2 speakers have used 14 verbs to express Path and 30 verbs to express Manner. A classification of these verbs shows that 17 path verbs and 33 manner verbs have basic meanings while five verbs have extended meanings of Manner conflated with Motion. These are verbs of ‘looking’, ‘calling’, ‘smelling’, ‘waving’, and ‘scaring’. Table 7.2 summarises these results:

⁷³ I have already motivated the usefulness of the frog story for TfS research in 5.2.2 and 6.1.2.

Table 7.2: L2 Motion/ised Verbs

Types	Path			Manner		
Semantic properties	[+ BASIC] [- CAUSE]	[+BASIC] [+ CAUSE]	[- BASIC]	[+ BASIC] [- CAUSE]	[+ BASIC] [+ CAUSE]	[- BASIC]
	come		get	fly	carry	look
	go			jump	lift	shout
	appear			climb	drop	call
	disappear			fall	push	smell
	escape			slip	throw	scare
	leave			creep	take	wave
	start			scatter	eject	
	head			leap	stick	
	pass			race	put	
	cross			rush	send	
	reach			run		
	transport			wander		
	enter			play		
	be			pop		
	rise			bump		
	follow			swarm		
	join			kneel		
				lean		
				search		
				spread		
				swim		
				submerge		
				chase		
	16		1	23	10	56
Total	17			38		
%	31.18%			68.18%		

Note: The classification of verbs has taken into consideration the context of their use.

To elaborate on the findings of Table 7.2, consider the ditransitive verb *throw* in the following extracts:

- (98)
- The dog too run away with the deer and the boy until they reached a cliff where the deer **threw** both the boy and the dog **into** a lake [C-T- M/58+59+60-20/1].
 - It suddenly stopped and **threw** the boy **away into** the river with the dog as well [A-T-M/67+68-20/1]
 - On the edge of the cliff, the deer stopped suddenly, in that way, **throwing** the boy **down** the cliff [M-T-M/62+ 63-20].

In extract (98a) participant L2-[C] combines the verb *throw* with the path particle *into*. In (98b) L2-[A] chooses the path particles *away* and *into* to describe the milestone and end location of the trajectory, respectively. In (98c), L2-[M] combines the verb *throw* with *down*, to describe the descent of the Figure from a higher to a lower location.

Further examples of motionisation by the current L2 participants may also be seen in the use of sound emission verbs. In this case, verbs like *shout* and *call* combine with

path satellites to describe the manner in which the voice has travelled in space. For instance in (99a) and (99b), participants L2-[I] and L2-[F] used the construction [*shout out*] to describe the event in which the boy was looking for his pet frog. Similarly, in (100) extracts a, b, and c, show participants L2-[L], L2-[F], and L2-[M] using the same path particle with the verb *call* to describe the trajectory followed by the emitted sound:

- (99) a. With the dog, he started looking for the frog everywhere.
He started to **shout out** [I-T-M/ 05+06-04]
b. He was **even shouting out** loud the name of his animal
[F-T-F/ 17-05]
- (100) a. They both went to the window and started **calling out** for
the frog [L-T-F/23+24-05]
b. He was **calling out** for his frog and he had a surprise
[F-T-F/36+37-11]
c. The boy was **shouting** {**calling out** his frog} [M-T-M/17+18-05]

Further examples of motionisation may be seen in the use of fine-grained verbs like *scare*. Normally, the verb *scare* describes an event affecting the psychological status of a recipient. Yet, in extract (101) L2-[B] used the particle *out* to describe the exit of the bees from their hive. The outcome of this motionised construction is a description of the manner in which the bees have been caused to move out of their hive:

- (101) Sandy **scared** the bees **out** of their hive. [B-T-M/50-11]

Similarly, in extract (102), participant L2-[I] has combined the verb *smell* with the particle *out* to describe the possibility of tracing the location of the dog from a hidden and unknown location to a visible and known one. If the verb *smell* has not been motionised, the description would be considerably different; it would simply suggest that the dog is ‘smelling’ the frog – an activity that is devoid of any reference to either direction or movement.

- (102) He was looking for the frog maybe or **smelling** the little
frog **out**. [I-T-M/08+09-04]

Extract (102) suggests that the motionisation of the verb *smell* adds three important details to the description of the event: (a) it informs that the frog is located out of the dog’s sight, (b) that the intention behind the sniffing activity is to move the frog out of its hidden location, and (c) that the manner in which the frog is potentially caused to move is by means of the sniffing activity.

The apparent success in motionising events such as the above, does not stem from similarities between TA and English. On the contrary, although the ‘sniffing’ activity of the dog was mentioned in several TA extracts, it was never motionised in the sense described in extract (102). Examples (103) and (104) illustrate this point for the verbs *š-m* ‘sniff’ and (105) for the verbs *ʔal* ‘look’ and *3-yy-t* ‘shout’, respectively. They show that the verb *š-m* is used with the locative particle *fī* ‘in’ allowing a semantic reading of a smelling activity rather than a caused-motion instigated by the act of smelling:

(103) [F-T-M/ 04-32]

il=kelb yšamšim fī=id-dabusa ylawwij 3aj=jrana
 ART=dog sniff.3M.IMPF in=ART=bottle search.IMPF.3M on=ART=frog
 ‘The dog is trying to sniff the frog out of bottle’ (target)

(104) [F-T-M/ 10-71 + 75]

I=kelb y-šam-šim fī=il=manhla fæmmæ=shi fī:=ha ij=jrana
 ART=dog sniff.IMPF.3M in=ART=hive there=INTER in=it ART=frog
 ‘The dog is trying to sniff the frog out of the hive’

(105) [F-T-M/05-44+45]

Yʔul min=iš=šubbæk w=lu=wlayyid y3ayyit 3læ=j=jrana
 look.IMPF.3M from=ART>window and=ART=boy call.IMPF.3M on=ART=frog
 ‘He is looking out of the window and the boy is calling out for the frog’ (target)

I defer discussing the full implications of motionisation by L2 speakers to the comparative part of this thesis (section 8.2). For now, Table 7.3 shows further motionised constructions and their contextual use. In total L2 speakers have motionised 17 different manner verbs whose motion meaning is either basic or extended. When the different verb + satellite possibilities are counted, the 17 motionised verbs expand into no less than 35 construction tokens.⁷⁴

⁷⁴ Both the types of spatial particles and the verb they associate with determine how strong the process of motionisation is. For instance, the construction [M_{otion} V_{erb} + *from*] does not constitute an instance of motionisation. Compare ‘kicked him from the hole’ versus ‘kicked him out of the hole’. While the former describes a simple action performed by an agent, the latter describes action with a resultant translocation of the patient. Equally, the verb ‘work’ in ‘He works out in the gym every day’ and ‘He works in the gym everyday’ is motionised in the former but not in the latter. While the latter clearly indicates a routine activity not implicating direction, the latter refers to boundary-crossing of some energy from the confines of a container (i.e. the body). An interesting case of motionisation is revealed in the case of the verb ‘be.’ Given that the verb is semantically bleached/weak, it tends to allow different degrees of motionisation. When *be* is accompanied by a directional phrase (e.g. I am *off* (to the market/to see the doctor, etc.)), it is motionised in that it expresses a sense of the intention of the speaker to leave a current location. In other cases, (e.g. ‘He is out, now’/he is away on holidays), ‘be’ has a weak sense of motionisation in that particles like *out*, *away*, etc., measure out distances (i.e. proximity or distance) from a relative ego.

Table 7.3: L2 Motionised Constructions

Sound emission	Verb	Sat	Examples
Perception verb	look	around, out, into, onto	The boy was <i>looking into</i> his boots [A-T-F/ 20-04]
Sense of smell verbs	smell	out	He was looking for the frog maybe or <i>smelling</i> the little frog <i>out</i> [I-T-M/08+09-04]
General action/activity verbs	pop	out	Whilst the boy got bitten by the mole which <i>popped out</i> of the hole [L-T-F/46+47-11] As he was checking the hole in the ground a squirrel <i>popped out</i> [J-T-F/31+32-11]
	head	towards	<i>Heading towards</i> the hive [L-T-M/37-09]
	chase	away	The owl kept on chasing [59-15] or <i>chasing</i> the little boy <i>away</i> [L-T-M/60-16]
	drop	into	He <i>dropped</i> poor Johnny <i>into</i> the pond [B-T-M/76-20]
	lift	up	To his surprise, it happened to be the antlers of a stag and which <i>lifted</i> him <i>up</i> on top of its head [L-T-F/64+65-18]
	wave	back	He <i>waved</i> [...] <i>back</i> to the frogs who are sitting on that big log [M-T-M/83-28/9]
	carry	over	The deer comes and <i>carries</i> the boy <i>over</i> the cliff or by a big rock [H-T-M/ 29-19]
	play	around	Meanwhile the dog spam was <i>playing around</i> . [J-T-F/26-10]
	get	out	No sooner did Tommy went to bed than froggy <i>got out</i> of the bottle and disappeared [K-T-M/09+10+11-02]
	send	down/ back	And, <i>send</i> the boy <i>down</i> into the pond [L-T-M/70-20/1] She <i>send</i> Johnny and Sandy <i>back</i> with a gift. [B-T-M/ 99-28]
	take	out, away, off	By the end of the story, the boy <i>took</i> the little frog <i>away</i> [I-T-M/54-28] He's <i>taken</i> his clothes <i>off</i> , so it's bedtime [L-T-F/06+07-01].

The above results suggest that motionised constructions form part of L2 TfS. In principle, this should neither be surprising nor require further speculation given that motionisation is pervasive in English and therefore should be easier to learn if the claim that rate of frequency promotes better learning.⁷⁵ What is left to be determined how pervasive motionisation is in L2 TfS behaviour. A first test would be boundary-crossing situations.

7.4.2. Boundary-Crossing

The boundary-crossing parameter investigates whether speakers express the translocation of a figure from a bounded ground (e.g. a room) to its exterior. V-language speakers are governed by the **boundary-crossing constraint** (Slobin 1996a) and,

⁷⁵ I discuss these points in section 9.2, with reference to positive and negative evidence (Larrañaga et al. 2011).

therefore, tend to use path verbs in their bare forms (e.g. *exit a room*) while satellite-framed language speakers would use manner verbs together with the satellite out (*run into/out of the room*).

Following Experiment 2, I have also selected *The Jar Scene*, *The Owl Scene*, and *The Window Scene* to examine the performance of the current L2 participants. Given what we know so far, these advanced L2 speakers have the required lexis for Manner descriptions of these boundary-crossing scenes. First, as Table 7.4 shows, many of these speakers know motion verbs like *jump*, *leap*, *pop*, and *fly* needed to describe the specific manner of motion of the figures in question. Second, Table 7.4 shows that these L2 speakers are familiar with the satellite *out* – the satellite that is needed to mark the crossing of these boundaries. The interesting question, therefore, is whether L2 participants would be **constrained** by the boundary-crossing principle of their L1 or whether they would show signs that their thinking-for-English is unaffected by this constraint.

For the jar scene, only three participants have used manner-based constructions for this purpose. Six L2 speakers have used path-based motionised constructions consisting of either the neutral verb *get* or the path verb *go*, together with the satellite *out*; and, two have used the construction [*run away*] – a manner-based verb that does not describe a boundary-crossing event. Table 7.4 summarises these results:

Table 7.4: L2 Boundary-Crossing (*The jar scene*)

Sub/ID	Verbs	N/C	B/V	M/V + sat	P/V + Out	M/V + Out
[A-T-M]	got out	-	-	-	+	-
[B-T-M]	-	-	-	+	-	-
[C-T-M]	leap out	-	-	-	-	+
[D-T-M]	got out	-	-	-	+	-
[E-T-M]	go out	-	-	-	+	-
[F-T-F]	-	+	-	-	-	-
[G-T-M]	go out	-	-	-	+	-
[H-T-M]	-	-	-	+	-	-
[I-T-M]	-	+	-	-	-	-
[J-T-F]	creep out	-	-	-	-	+
[K-T-M]	got out	-	-	-	+	-
[L-T-F]	jump out	-	-	-	-	+
[M-T-M]	get out	-	-	-	+	-
Total		2	0	2	6	3

N/C= No Comment; B/V= Bare Verb; M/V + Sat= Manner Verb + Sat; P/V + Out= Path Verb + out; M/V+ Out = Manner Verb + out.

To elaborate on the results of Table 7.4, consider the extracts in (106) where six participants used the verb *get* with the satellite *out*. These examples are interesting since

they show that the participants are aware that there is a boundary-crossing event.

However, the construction is free from Manner description:

- (106)
- a. At night, when he was sleeping, the frog *got out* of the container {of the jar} and run away [A-T-M/ 06+07+08-02].
 - b. The pet frog *go out* of the jar and silently left the room [D-T-M/ 06+07-02]
 - c. We can see the pet frog *going out* of the bottle and he seems to be running away. [E-T-M/10+11-02]
 - d. At that time, the frog thought of *going out*. [...] it disappeared [G-T-M/08+11-04]
 - e. No sooner did Tommy went to bed than froggy *got out* of the bottle and disappeared [K-T-M/09+10-02]
 - f. While the boy was sleeping, the frog managed to *get out* of the bowl and went way [M-T-M/06+07+08-02].

Three participants have encoded manner information in their description. In (107a), participant L2-[L] has used the manner verb *jump*, while in (107b) and (107c) L2-[J] and L2-[C] have used the verbs *leap* and *creep*, respectively. The fact that these three L2 speakers have encoded manner information in a boundary-crossing situation indicates that the boundary-crossing constraint is not necessarily a restriction on V-language speakers learning an S-language:

- (107)
- a. The froggy took the opportunity to *jump out* of the jar, [...] the frog disappeared. [L-T-F/15+16-02+17-03]
 - b. Elvis *creeped out* of the bottle, and escaped [J-T-F/09+10-02]
 - c. The frog *leapt out* of the jar and run away [C-T-M/05-03]

Based on the above data, one may tentatively say that L2 speakers are able to conceptualise and describe the event as boundary-crossing in English. The learnability issue seems to be related to combining manner verbs and the path satellite *out* when describing these scenes. Notably, even when tested across different scenes, L2 TfS behaviour does not change.

To elaborate on this point, consider *The owl scene*. Since the most defining feature of birds is their ‘flying’ motion (Rosch 1975, 1978), it is possible that speakers would attend to this attribute when describing the exit of the owl from the hole than when they described the exit of the frog from the jar. Put differently, a *jumping*, *leaping*, or *creeping* motion – as was the case for the frog in *the jar scene* – is not the prerogative of a single type of figure. For instance, while a human categoriser might describe a frog to be *jumping*, *creeping*, or *leaping out*, s/he might say the same thing of other animals or humans. However, if a bird is involved, there is a sense in which the attribute ‘flying’

would spring to mind first as this attribute is central to the categorisation of birds. Consequently, knowing that the verb *fly* forms part of the lexicon of these L2 speakers (see Table 7.2) it is interesting to see whether they would select this verb to describe the emergence of the owl from the hole.

Table 7.5 shows that even within this highly specific motion event scene, L2 speakers have not used manner-based boundary-crossing constructions.

Table 7.5: L2 Boundary-Crossing (*The owl scene*)

Subject ID	Verb	N/C	B/V	M/V + Sat	P/V + Out	M/V + Out
[A-T-M]	got out	-	-	+	-	-
[B-T-M]	came out	-	-	-	+	-
[C-T-M]	appear	-	+	-	-	-
[D-T-M]	got out	-	-	+	-	-
[E-T-M]	come from	-	+	-	-	-
[F-T-F]	Ø	+	-	-	-	-
[G-T-M]	Ø	+	-	-	-	-
[H-T-M]	Ø	+	-	-	-	-
[I-T-M]	appear	-	+	-	-	-
[J-T-F]	appear	-	+	-	-	-
[K-T-M]	locative/ existential be	-	+	-	-	-
[L-T-F]	came out	-	-	-	+	-
[M-T-M]	Ø	+	-	-	-	-
Total		4	5	2	2	0

N/C= No Comment; B/V= Bare Verb; M/V + Sat= Manner Verb + Sat; P/V + Out= Path Verb + out; M/V+ Out = Manner Verb + out.

As Table 7.5 shows, no [$M_{anner} V_{erb} + Out$] constructions have been recorded. Although L2 speakers have used the verb *fly* in the description of the bees' movement in pictures 8 and 10 and in picture 16 where the owl is chasing the boy away, none of the participants has used the verb *fly* to comment on this motion event. Instead, L2 speakers have focused on the path of the motion evidenced in the use of the locative construction [*there + be*] as (108), the path verb *appear (from)* as (108 b, c, d, respectively), and the deictic verb *come* with the locative preposition *from* as (108e).⁷⁶

- (108) a. To his surprise, there *was* an owl. And, the owl scared Tommy.
[K-T-M/55+56-14]
b. As he was checking the hole an owl *appeared* all of a sudden, and scared him [J-T-F/ 42+43+44-14]
c. An owl *appeared*, and the boy was taken by surprise, and fell down.
[I-T-M/31+32+33-14]

⁷⁶ It is important to note that the construction [Verb + from] does not constitute an instance of motionisation. Compare 'kicked him from the hole' versus 'kicked him out of the hole'. While the former describes a simple action performed by an agent, the latter describes action with a resultant translocation of the patient.

- d. Suddenly, an owl *appeared from* the hole and pushed the boy.
[C-T-M/ 45+46-14]
- e. An owl *came from* that hole, and made the boy loose his balance.
[E-T-M/53+54-14]

Similarly, extracts in (109a) and (109b) show two participants have combined the deictic verb *come* with the satellite *out* while in (110a) and (110b) two participants have used a [*got out*] construction:

- (109) a. A big owl *came out* of that tree trunk, and scared him.
[B-T-M/59+60-14].
- b. All of a sudden, an owl *came out*, and frightened the little Boy. [L-T-F/ 55+56-14]
- (110) a. Suddenly, an owl *got out* of the tree, and the boy fell down.
[A-T-M/ 52+53-14]
- b. Suddenly, an owl *got out* of the hole, and frightened him
[D-T-M/ 47+48-14].

A final boundary-crossing scene that carries a TfS value is *The window scene*. In this scene, the focus is on how the observer conceives of the location of the dog and his subsequent fall out of the window. In theory, a number of manner-satellite constructions could be used, like [*fall out*], [*jump out*] or [*slip out*].

The results show that although all 13 participants have used either the manner verb *fall* or *jump*, only two participants have combined these verbs with the satellite *out*. The rest of the participants have used the verb *jump* or *fall* in their bare form, together with the preposition *from* or the satellite *down*. To illustrate, in extract (111) Participants L2-[A] and L2-[H] have used the target language construction [*fall out*] to describe the fall of the dog out of the window, while extracts in (112) show that the verb *fall* has been used either in its bare form (a) or conjoined with the preposition *from* (b), the satellite *down* (c) or the satellite *off*:

- (111) a. Suddenly, the dog *fell out*... [A-T-M/19-06].
- b. The dog *falls out* of the window [H-T-M/ 12-06].
- (112) a. So the dog was losing its balance from the window ledge, and he *fell* [F-T-F/20+21-06]
- b. The dog *fell from* the window [I-T-M/ 14-06]
- c. The dog Stam climbed the window, and then, slipped, and *fell down* outside in the floor [J-T-F/22+23+24-05/6].
- d. He *jumped off* the window, and, *fell on* the ground [B-T-M/ 28+29/05+6]

Table 7.6: L2 Boundary-Crossing (*The window scene*)

Subject ID	Constructions	N/C	B/V	M/V + Sat	M/V + Out	M/V + Out
[A-T-M]	fell out	-	-	-	-	+
[B-T-M]	jump off	-	-	+	-	-
[C-T-M]	jump from	-	+	-	-	-
[D-T-M]	fall down	-	-	+	-	-
[E-T-M]	fall from	-	+	-	-	-
[F-T-F]	Fell	-	+	-	-	-
[G-T-M]	fell from	-	+	-	-	-
[H-T-M]	fall out	-	-	-	-	+
[I-T-M]	fall from	-	+	-	-	-
[J-T-F]	fall down	-	-	+	-	-
[K-T-M]	fall down	-	-	+	-	-
[L-T-F]	fall	-	+	-	-	-
[M-T-M]	fall down	-	-	+	-	-
Total		0	6	5	0	2

N/C= No Comment; B/V= Bare Verb; M/V + Sat= Manner Verb + Sat; P/V + Out= Path Verb + Out; M/V+ Out = Manner Verb + Out.

To sum up the participants show a clear preference for Path-based constructions rather than Manner-based constructions in describing boundary-crossing scenes. Figure 7.1 compares the performances of L2 speakers across the three scenes. It shows that L2 speakers have consistently used fewer Manner-based boundary-crossing constructions than Path-based type constructions. Crucially, Figure 7.1 also shows that L2 speakers have used even more bare motion verbs than motionised constructions. When it comes to boundary-crossing, L2 speakers prefer to describe the event based on two stages. Stage one, brings the figure up to the boundary. The tendency here is to use a bare path verb to describe motion right up to a boundary. Next, a second clause would describe the leaving motion without specifying (linguistically) that a boundary has been crossed. It is also significant that in the owl scene, more participants chose not to comment on the boundary-crossing event than those using manner-based constructions. This raises the possibility of ‘avoidance’, i.e. that, L2 learners use a strategy of avoidance due to the unavailability of appropriate linguistic means (Larrañaga et al. 2011, Ellis 2012).

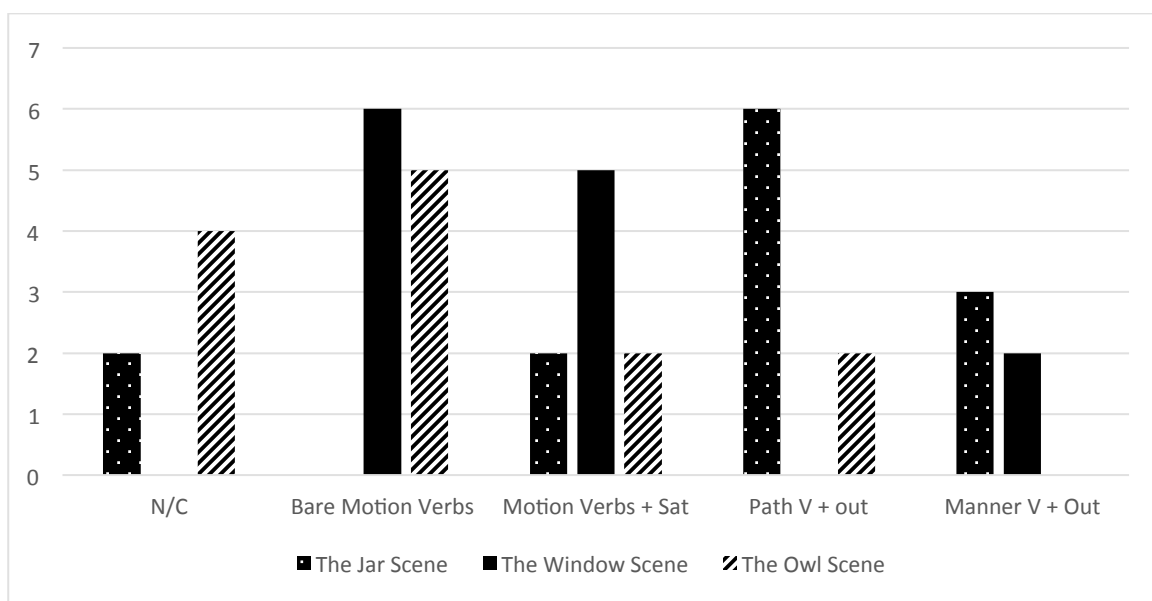


Figure 7.1: Relationship between TfS and Boundary-Crossing Events.

Note: N/C= No Comment (did not describe this event); Bare Motion Verbs (e.g. *go*, *climb*); Motion Verb + Sat (e.g. motion verb + any spatial particle other than *out*); Path V + out= *go out*; Manner Verb + out= *run/fly out*.

Figure 7.1 may also be read from a different angle. Notice that the participants tended to use different strategies in different scenes. For instance, while the jar scene shows a higher percentage of path-based constructions, the owl scene shows fewer and the window scene shows none at all. Instead, L2 speakers have capitalised on constructions consisting of a motion verb and non-boundary-crossing satellites (e.g. *down*, *up*, *away*). This encourages the conclusion that boundary-crossing is **scene-dependent**. In other words, since the highest ratio for the use of the satellite *out* has been recorded in the jar scene, it seems plausible to conclude that the performances of L2 speakers differ according to the degree of saliency of boundary-crossing motion. It seems that if a situation is ‘highly explicit’ about leaving or entering a bounded landmark – as is the case in the jar scene- L2 participants are more inclined to use the satellite *out* than they would do in less typical boundary-crossing scenes.

To elaborate on this point, in the jar scene the frog has one leg out of the jar while the other leg is still within the boundary of the jar. In this way, the categorisation of this event as boundary-crossing may be said to be highly possible. This is different from the other two scenes. In the window scene, it is less clear whether *the dog* is located at the outer boundary of the window ledge or inside the window bay before the fall has initiated. Equally, in the owl scene it is less clear whether *the owl* actually exited (in that particular picture) from the hole or perched at its opening.

While the typical/atypical interpretation of boundary-crossing situations should remain speculative, analysis of three boundary-crossing scenes testifies that Path rather Manner is the preferred mode of expressions for these L2 speakers. This suggests that the participants are influenced by the boundary-crossing constraint even in their L2. A full consideration of the findings will be undertaken in part three of this chapter. For now however, I move the analysis from verbs to nouns and prepositional phrases depicting ground descriptions.

7.4.3. Ground Elaboration

Slobin (1996b) proposed that speakers of V- and S-languages should be compared with reference to the use of minus-ground versus plus-ground clauses. Minus-ground clauses contain no explicit mention of ground elements (e.g. bare verbs like *climb* or verb complexes like *climb up/out/down*). Plus-ground clauses encode at least one ground element (e.g., *He climbed up the tree*). Two main points are of potential interest in TfS about grounds and trajectories. First, do L2 speakers prefer to use *minus-* or *plus-ground* clauses? Second, which linguistic means did they use to describe sources, milestones, and goals.

The data shows that 41.63% of the total motion clauses used by L2 speakers are minus-ground and 48.95% are plus-ground. This suggests that L2 speakers have used a rather balanced number of minus- and plus-ground clauses. It also shows that L2 speakers tend to use specific constructions to describe ground elements and trajectories.

In *The jar scene*, for instance, 11 participants mentioned the jar. Eight of these introduced it by means of an *of*-phrase modifying the satellite *out*. In *The owl scene*, three participants introduced *the hole* with *of*-phrase; two introduced it by means of the preposition *from*. In this case, the *from*-phrase followed the path verbs *appear* and *come* as follows:

- (113) a. Suddenly, an owl appeared from the hole and pushed the boy. [C-T-M/ 48-49-15]
- b. An owl came from that hole and made the boy lose his balance. [E-T- M/ 53+54+55-14]

In *the window scene*, one narrator introduced *the window* by means of the locative particle *off* as follows:

- (114) He jumped *off* the window and fell on the ground. [B-T-M/26+27-05]

In addition, three participants used the preposition *from*:

- (115) a. He jumped from the window. [A-T-M/ 06+07+08-02]
 b. The dog lost his balance and fell from the window. [E-T-M/24+25-06]
 c. Unfortunately, he fell from the window. [G-T-M/24-05]
 d. The dog fell from the window. [I-T-M/15-06]

In short, L2 speakers used one of the following TfS strategies to code the jar, the *window*, and *the hole*:

- i. [M_{anner} + *out* + *of* + G_{round}]
 e.g; jumped out of the jar.
- ii. [M_{anner} + *out* + *of* + G_{round}]
 e.g; fall off the window
- iii. [M_{anner} V_{erb} + *from* + G_{round}]
 e.g; fall from the window.
- iv. [B_{are} M_{otion} V_{erb} + G_{round}]
 e.g; climb the window

As a group, L2 participants have used various linguistic means in order to describe Ground information. It is important to note that in (i) through to (iv), all Ground elements are talked about using dynamic verbs of motion (e.g. *fall*, *climb*, *jump*). This, however, does not suggest that L2 speakers did not talk about Ground elements in a static fashion. As examples in (116) show participant L2-[B] has consistently talked about *the hole* in the tree, and *the hole* in the trunk by means of the existential expression [*there* + *be*]:

- (116) a. There was a big hole in the ground. [B-T-M/40-10]
 b. There was a hole in the middle of the trunk. [B-T-M/52-13]

In the TfS literature (e.g. Slobin 1996a, Ibarretxe-Antuñano 2004), it is customary to use *The cliff scene* to test the static versus dynamic descriptions of Ground elements. L1-TA speakers introduced the *cliff* and the *river* quite dynamically and L2 performances were no different. To illustrate, in (117) L2-[B] has used the dynamic verbs *reach*, *fall*, and *drop* to introduce *the cliff* and *the river* respectively:

- (117) When the deer reached the end of the cliff, he dropped poor Johnny into the pond and Sandy followed him, and they both fell into the water. [B-T-M/80+81+82+83/21/22/23]

It is not clear what to conclusions to draw based on the parameter of dynamic motion versus scene-setting. Tunisians did not focus on scene-setting neither when using Tunisian nor when using English as a TfS tool.

7.4.4. Path Saliency: The Fronting of Spatial Particles

The fronting of Path satellites may indicate the degree of Path saliency in TfS behaviour. The fronting of spatial particles means one of two things: it may mean that speakers increase Path saliency by fronting satellites and prepositional phrases. Alternatively it may also mean that speakers may front satellites because it is already salient in their TfS behaviour. Under either assumption, it is interesting to see whether the L2 participants in this study have capitalised on this strategy.

As the following extracts show, three L2 speakers have fronted spatial particles. In (118a) L2-[C] has fronted the Path-specifying prepositional phrase *into the field* to profile the end goal of a trajectory. Similarly, in (118b) and (118c) L2-[E] and L2-[H] fronted the prepositional phrases to elaborate source information:

- (118) a. Then the dog and the boy decided to look for the little frog
outside the home. *So, into the field* they went. [C-T-M/15+16-08]
- b. *Over a big trunk of a tree*, we can see both the small boy and
the dog leaning and looking for something. [E-T-M/82+83+84-25/26]
- c. *So, from inside the hole*, comes a groundhog. [H-T-M/ 19-11]

A full comparison of these results is carried out in part three. For now, though, I provide a brief summary of the main findings.

7.5. Summary

In Study 3 I examined the TfS habits of **advanced** L2 speakers of English. The results show some evidence that these L2 speakers have internalised the process of motionisation especially when describing boundary-crossing situations. However, the above analysis also showed that L2 speakers prefer path-based motionsied constructions over manner-based ones. Additionally, there is evidence that L2 performances tend to be influenced by the typical/atypical nature of the boundary-crossing scene being described –a point that has hardly been discussed in the TfS literature. However, in order to appreciate fully the TfS behaviour of the L2 participants, one needs to look at comparing the results reported above to those of L1-Eng and L1-TA reported in Chapters 5 and 6, respectively. It is to this I now turn.

8. Thinking-for-Speaking Patterns in L1 and L2 English Users: A Comparison

In this part, I address the main thesis questions, namely:

1. What are main thinking-for-speaking differences between L1 and L2 participants in this study?
2. To what extent are these differences motivated by the TfS habits acquired through first languages?

To answer these questions, in what follows I compare the results of part two and three of this study and, whenever it is relevant to the discussion, I also include data from Chapter 5. The contrastive analysis covers three aspects, namely: verbs, boundary-crossings, and the elaboration of Ground elements. I take these in turn.

8.1. Motionised constructions in L1 and L2 English:

A comparison of the motion/-ised verbs used by L1 and L2 participants in study 2 and 3, respectively, reveals the following results. While L1 English speakers have used 66 basic and extended motion verbs, L2 speakers have used 55 verbs. Figure 8.1 is a graphic presentation of these results. It categorises verbs of Manner and Path according to whether motional meanings are inherent in the semantics of the verb or whether they are extended (i.e., [-/+Basic]). It shows that the clearest difference between the lexis of the two groups resides in the class of Manner verbs. L1 speakers scored higher in verbs expressing CAUSATION via MOTION (17 for L1 and 10 for L2). Examples of this class of verbs are *push*, *lift*, and *drop*. L1 speakers have also scored higher in the number of verbs whose primary meanings have been extended (13 for L1 and 6 for L2). Examples of these verbs are sound-emission verbs like *bark*, sense verbs like *smell*, and action verbs like *knock*:

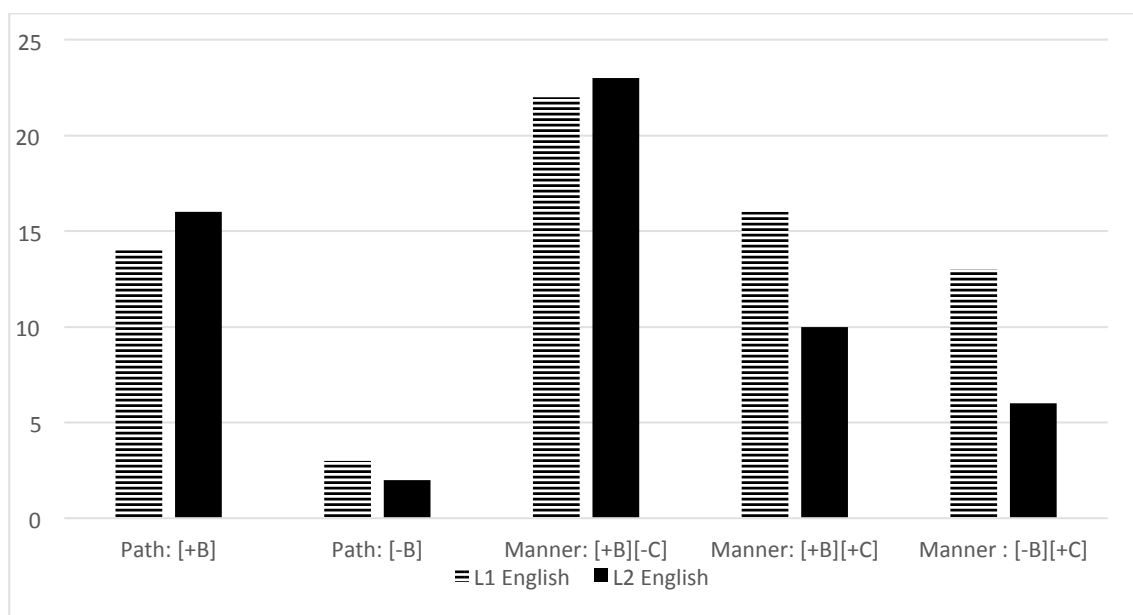


Figure 8.1: Motion/ised Verbs in L1 and L2 TfS

One cannot conclude that L2 speakers have fallen short of acquiring L1 TfS habits simply because they have produced fewer verbs. Similarly, we cannot conclude with absolute confidence that the conceptual component Manner is as salient for L2 speakers as it is for L1 speakers based on the fact that both test groups have used a similar number of typical manner verbs. A careful analysis of Figure 8.1 shows some differences in the types of the manner verbs used by each group in that L1 speakers produced 1 third more basic Manner verbs that express Causation, and almost double the number of verbs whose Manner-of-Motion meaning is not basic.

An omnibus Chi Square test onto these results reveals no association between these two factors, L1 and L2; and type of motion/ised construction ($\chi^2(4) = 3.38$, $p = .50$). A careful inspection, especially onto these two last categories, was conducted using an exact Fisher Test to assess if these frequencies were similar. Manner [+B][+C] shows no difference between the two groups (L1= 13/68 vs L2=6/57=, $p = .22$); and a similar scenario was obtained for Manner [+B][-C] (L1= 16/68 vs L2 =10/57=, $p = .50$).

Figure 8.1 provides a broad picture about the types of path and manner verbs each group prefer to use in narrating the frog story. It does not make any specific claim about the performances of individual narrators –a factor that need not be overlooked if a comprehensive assessment of TfS behaviour is to be understood. One could raise the point that perhaps the majority of the motion verbs listed for each group could have come from few narrators more so than others. One could also raise the point that, as far as the notion of motionisation is concerned, what may be at issue is not the use of Path

versus Manner verbs as such, but more importantly, is the use of [$M_{\text{anner}} V_{\text{erb}} + S_{\text{patial}} P_{\text{article}}$] constructions. Consequently, in order to rule out these possibilities, in Table 8.1 I fuse the six subclasses presented in Figure 8.1 into a single category: *motionised constructions*. In this category, then, the binary distinction of Manner versus Path is ignored. Instead, I assume that motionised constructions like [*run out*] [*go down*] [*buzz round*] are generated by a schematic construction $M_{-(\text{ised})}[V_{\text{erb}}]$ (i.e. either motion or non-motion verb + spatial particle).

The results show that L1 English speakers present a higher rate of production of 6.38 more constructions, than L2 English speakers. If their means are compared via an ANOVA, this difference shows to be marginally significant ($L1=19.92$, $L2=13.54$, $F(1)=4.16$, $p=.05$, $r=.39$):

Table 8.1a: L1 Motionised Verbs

Participants	Motionised Verbs
[A-E-F]	22
[B-E-F]	8
[C-E-F]	42
[D-E-F]	20
[E-E-F]	28
[F-E-M]	20
[G-E-F]	13
[H-E-M]	20
[I-E-M]	16
[J-E-F]	19
[K-E-F]	13
[L-E-F]	25
[M-E-M]	13
Mean	19.92
SD	8.59
Total	259

Table 8.1b: L2 Motionised Verbs

Participants	Motionised Verbs
[A-T-M]	20
[B-T-M]	26
[C-T-M]	13
[D-T-M]	14
[E-T-F]	9
[F-T-F]	4
[G-T-F]	2
[H-T-M]	12
[I-T-M]	9
[J-T-M]	13
[K-T-F]	10
[L-T-F]	23
[M-T-M]	21
Mean	13.54
SD	7.21
Total	174

This finding – namely, that most L1 speakers have used more motionised constructions than L2 speakers both at *group level* and at *individual level* – raises the question of why this is the case.⁷⁷ In order to answer this question another line of comparison between the two groups is needed. I have proposed in section 6.3.1, that motionisation is a

⁷⁷ It is important to note that results in Table 8.1a and Table 8.1b camouflage intra-group variations. Although ten out of thirteen L1 participants have used more motionised constructions than many L2 participants have, L2 participants [B-T-M], [M-T-M] and [L-T-F] have used more motionised constructions than some L1 speakers.

productive process. Consequently, I further propose that if this criterion has any theoretical validity, it should explain why motionised constructions are more abundant in the TfS behaviour of the L1 participants than in the L2 participants.

The main point of interest here is *whether* and *to what extent* L1 and L2 speakers have motionised verbs equally **productively**. Productivity, as defined by Boas (2010) is “the speaker’s ability to extend argument structure construction to new verbs and to avoid overgeneralisations” (2010: 17). Productivity is closely associated with the notion of frequency (Boas 2010: 17). The assumption is that the frequency of usage of a construction type indicates level of “entrenchment of a schema” (2010: 17). If this assumption is valid, then comparing the productivity of motionised constructions in L1 and L2 speakers would provide clues about level of entrenchment of the motionised schema. In this context, Boas observes that “[d]etermining a construction’s type frequency is important because increased type frequency has been shown to directly correlate with a construction’s ability to occur with novel items” (Boas 2010: 17-18).

In short, therefore, measuring productivity sheds light on the psychological entrenchment of a schematic (i.e. abstract schematic constructions), and, provides an indication of speakers’ ability to manipulate it for TfS purposes. The next step is to determine how to measure productivity with reference to motionisation. Boas (2010: 18) points out that determining a construction’s productivity should take into consideration three types of information:⁷⁸

- a. Token frequency “which determines the degree of entrenchment of individual substantive word forms”,
- b. The degree of openness (i.e. the variability of the items occurring in a particular pattern),
- c. Statistical pre-emption (the repeated witnessing of the word in a competing pattern).

More specifically, in order to compare the level of productivity of motionised constructions in L1 and L2 participants in this study, I have followed the following four steps. First, I identified all motionised verbs and the satellites that accompanied them. Second, I counted unique motionised constructions. Third, I counted the number of combinations per verb. For instance, *go* might have been used in combinations with *up*, *down*, *into*, *off*, etc. Fourth, I measured the level of productivity by contrasting the

⁷⁸ According to Boas (2010: 18) these procedures are inspired by Goldberg (2006: 93).

results of step 3 and step 4.⁷⁹ Tables 8.2a and 8.2b show that on average L1 speakers present a 16% higher productivity, which is significant difference if these means are compared with an ANOVA test ($L1=22.68\%$, $L2=5.92\%$, $F(1)=14.92$, $p<.01$, $r=.62$).

Table 8.2a: Motionised Constructions in L2 Narratives

Participant	Total motion verbs per participant	Construction Token	Construction Type	Productivity rate
A-T-M	20	9	13	20
B-T-M	26	18	23	19.2
C-T-M	13	6	6	0
D-T-M	14	8	8	0
E-T-F	9	8	8	0
F-T-F	5	5	5	0
G-T-F	2	2	2	0
H-T-M	12	9	9	0
I-T-M	9	7	7	0
J-T-M	13	11	11	0
K-T-F	10	6	8	20
L-T-F	23	16	19	13
M-T-M	21	15	16	4.7

From left to right: column 1 provides L1 participant ID; column 2 states how many motionised constructions have minimally been formed; column 3 states how many different constructions have been instantiated based on these base construction tokens (column 3); column 4 provides the productivity rate.

Table 8.2b: Motionised Constructions in L1 Narratives

Subject	Total motion verbs per participant	Construction Token	Construction Type	Productivity Rate
A-E-F	22	14	22	36.3
B-E-F	9	6	9	33.3
C-E-F	41	25	29	9.7
D-E-F	20	11	19	40
E-E-F	28	15	21	21.4
F-E-M	20	16	18	10
G-E-F	13	9	11	15.3
H-E-M	20	16	21	25
I-E-M	16	11	15	25
J-E-F	18	11	16	27.7
K-E-F	13	10	10	0
L-E-F	24	15	22	29.1
M-E-M	13	13	14	7.6

From left to right: column 1 provides L1 participant ID; column 2 states how many motionised constructions have minimally been formed; column 3 states how many different constructions have been instantiated based on these base construction tokens (column 3); column 4 provides the productivity rate.

The productivity rate was estimated as the difference between the rate of Constructions Type, minus the rate of Constructions Token, over the total rate of Motion Verbs, within each speaker. In arithmetical terms:

⁷⁹ See Appendix 7 for a full analysis and concrete examples.

$$\text{Productivity rate} = \frac{\text{Number of Constructions Type} - \text{Number of Construction Tokens}}{\text{Total Motion Verbs}}$$

The discrepancy in the performances of individual L2 participants shows up even more when the results in Table 8.2 are translated graphically. Figure 8.2 shows histograms of the productivity rate per group. It displays the frequency of cases of each group at each value of the observed productivity rate. It shows that more than half of the L2 English speakers display no productivity (n=90, hence the start of the distribution for L2 English speakers is more populated than other values of the scale). Furthermore, the largest L2 English productivity is of 20% approximately. In contrast, more than half of the L1 English speakers produced more than 20% of productivity. On average L1 speakers present a 16% higher productivity, which is significant difference if these means are compared with an ANOVA test (L1=22.68%, L2=5.92%, $F(1)=14.92$, $p<.01$, $r=.62$). A breakdown of how each participant performed with respect to productivity. It shows that productivity accounts for 92.3% of L1 performances –with the lowest performance coming from subject L1-[G] at 15.3%, and, the highest performances coming from subjects L1-[A] at 45.4%. More importantly, Figure 8.2 also shows that the productivity level in L2 speakers has stagnated (0% increase) in the performance of nine L2 participants.⁸⁰

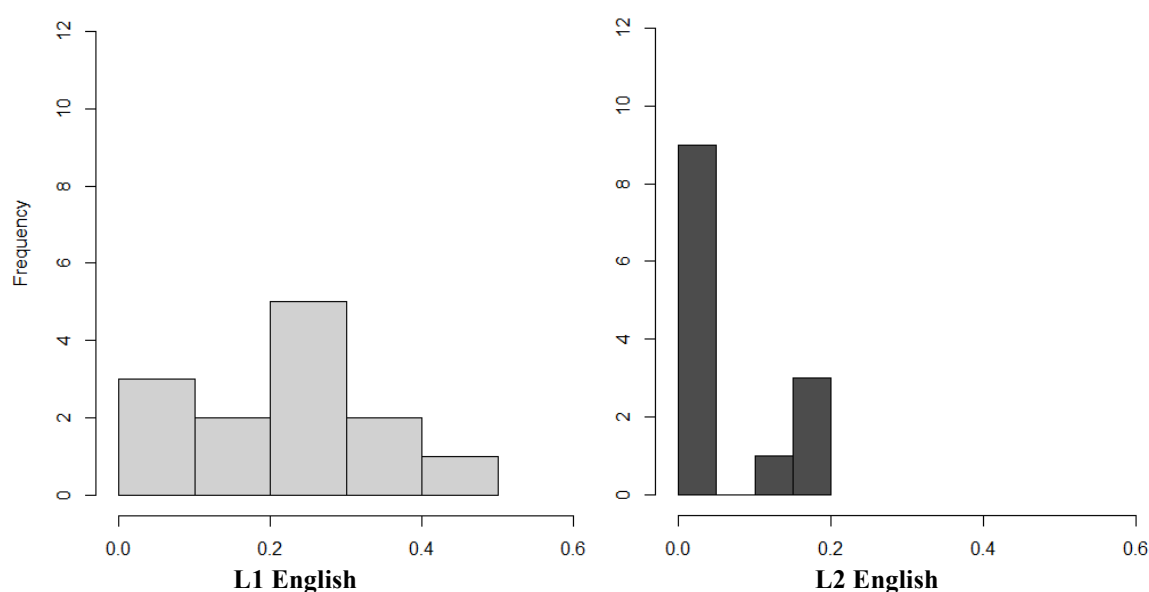


Figure 8.2: Productivity in L1 and L2 Speakers

⁸⁰ See Appendix 8 for details of the data motivating this statistical comparison.

Crucially, a closer look at Appendix 7 reveals that L1 participants have used more types of satellites and more fine-grained verbs than L2 speakers have. For instance, compare subjects [A-E-M] and [A-T-M]. First, in terms of verb quality, the L1 speaker has used fine-grained verbs like *creep*, *bark*, *hook*, *splash*, *knock*, while the verbs of the L2 participant tend to be common verbs like *run*, *fall*, *throw*, and *jump*. Second, [A-E-M] has used nine different satellites (i.e. *out*, *up*, *off*, *into*, *back*, *away*, *around*, *along*, *down*), while [A-T-M] has used only six of these (i.e. *out*, *into*, *away*, *around*, *down*, *up*).

To sum up, when the results are compared based on the level of productivity of motionised constructions, a clear difference between L1 and L2 TfS behaviour emerges. Most L2 speakers did not combine satellites and verbs in ways that demonstrate a TfS style that is parallel to that of L1 speakers. However, it is important to note that subjects [A-T-M], [B-T-M], [K-T-F] and [L-T-F] and to a lesser degree [M-T-M] have used various satellites and verbs in ways that indicate they have or are on their way to internalising the schema $M_{-ised}[V_{erb}]$. A more elaborate interpretation and discussion of these findings will be the subject matter of my next chapter. For now, I turn to the second parameter of my comparison.

8.2. Boundary-Crossing in L1 and L2:

In this section, I identify the main differences in L1 and L2 when thinking-for-English in the expression of boundary-crossing in *The jar scene*, *The window scene*, and *The owl scene*. The main question I seek answers to is how each group has encoded Manner in these scenes and whether a clear difference between the two groups can be identified.

Study 2 and 3 showed that Manner was more salient for L1 speakers (74.3%) than for L2 speakers (20.5%). In the Jar Scene, for instance, 11 (84.6%) L1 participants have used manner verbs like *jump*, *creep*, *slip*, or *jump* in combination with *out*. In contrast, only three L2 participants used manner-based motionised constructions. In the window scene, seven L1 participants and only two L2 participants have described the fall of the dog as initiating from within a bounded landmark and crossing a boundary. Interestingly, in the owl scene, seven L1 speakers but none of the L2 participants have described the manner in which the owl came out of the hole. Figure 8.4a summarises these results:

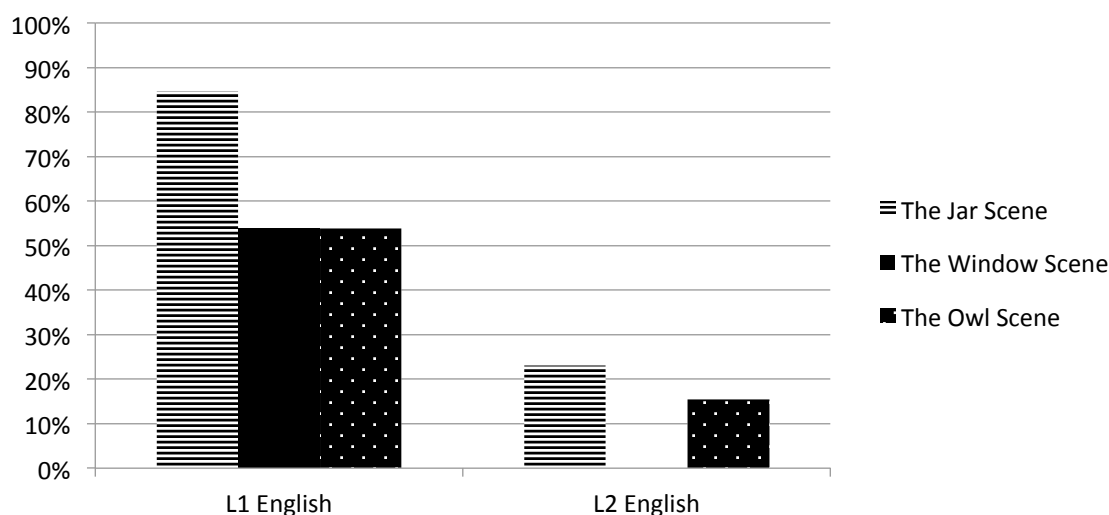


Figure 8.3a: Manner Constructions in Boundary-Crossing

In order to determine whether the differences in the use of Manner-based boundary crossing constructions are significant, I have used a multivariate analysis of variance (MANOVA) which allows to test jointly if there is an overall difference between the groups, together with differences in each scene between groups, regarding their mean Manner constructions. The Pillai's Trace estimate, supports the claim that there is a main difference between the two groups, across all the scenes ($V=.55$, $F(3, 22)=9.25$, $p<.00$). A comparison of the groups within each scene, shows a similar pattern in each case. L1 speakers present more Manner constructions in *The Jar Scene* ($F(1, 24)=14.76$, $p<.00$), in *The Window Scene* ($F(1, 24)=14.00$, $p<.00$), and in *The Owl scene* ($F(1, 24)=4.69$, $p=.04$).

The question that has not been addressed so far but which is relevant to a discussion of boundary-crossings is whether a **trade-off** between manner-based versus path-based constructions is bound to happen when speakers take one option rather than another. In other words, one may ask whether when L1 and L2 speakers do not opt for [$M_{anner} V_{erb} + out$] constructions, do they opt for [$P_{ath} V_{erb} + out$] constructions instead?

To address this question, in Figure 8.3b I compare the total number of [$Path + out$] constructions used by L1 and L2 participants in each of the three scenes. Figure 8.4 points to interesting conclusions. Not only did the L1 and L2 speakers perform differently with respect to path-based boundary crossing constructions overall, but more importantly, their preferences to the expression of boundary-crossing using path verbs seems to vary in accordance with scene types. Six L2 participants used [$P_{ath} V_{erb} + out$] constructions in the jar scene but fewer in the window scene and none in the owl scene:

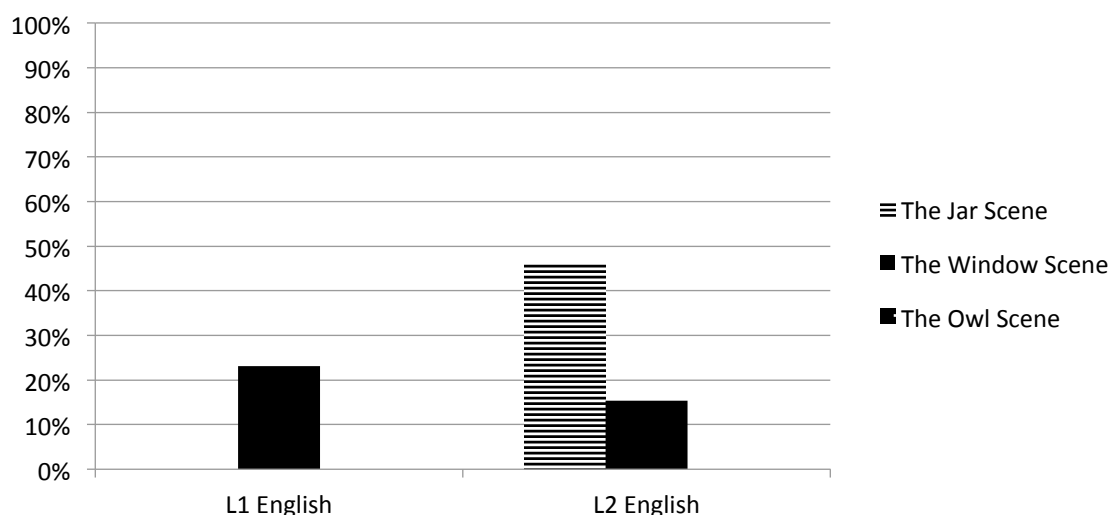


Figure 8.3b: Path Constructions in Boundary-Crossing

A MANOVA analysis reveals there is an overall difference between the L1 and L2 speakers regarding the use of [Path + *out*] constructions ($V=.30$, $F(2, 23)=10.26$, $p<.00$). The main differences in the use of [Path + *out*] constructions occurs in the description of *The Jar Scene*. L2 speakers produced more Path constructions than L1 speakers ($F(1, 24)=10.28$, $p<.00$). In *The window scene*, however, no significant difference was noted ($F(1, 24)=.23$, $p=.64$). In the owl scene, a Manova analysis was not possible given that none of the groups produced any Path constructions.⁸¹

That no trade-off has been recorded in the window scene for either group warrants further discussion. Precisely, if boundary-crossing is so salient to speakers of English, why would L2 speakers not opt for a Path-based construction when Manner is overlooked?

There is no straightforward answer to these questions. However, one possible reason why a lack of trade-off between a [P_{ath} V_{erb} + *out*] versus [M_{anner} V_{erb} + *out*] construction in the window scene is due to lack of path verbs describing the nature of the fall off the window. In other words, expressions like *exited out*, *departed out*, or *emerged out* neither present themselves as colloquial alternatives nor do they carry the same communicative content as *fall out*, *slip out*. Consequently, it is possible that the lack of a trade-off in *The window scene* is constrained by a corresponding paucity of lexical options that may combine with the boundary-crossing *out*—other than those conflating Manner and Motion.

⁸¹ It is important to note that in spite of the lack of multivariate normality of the measures, a MANOVA can be robust enough when groups are balance in terms of sample size between the measures. Therefore, following Field, Miles, and Field (2012), we rely on the results of the MANOVA, using the Pillai's Trace parameter.

Going beyond speculation, the statistical analysis suggests that there is an association between the expression of boundary-crossing and how prototypical a boundary-crossing scene is. L1 speakers prefer Manner-based constructions when describing both ‘typical’ boundary-crossing scenes, and less in in scenes that project a fuzzy picture about the crossing of a boundary. L2 speakers, however, show a clear preference for [P_{ath} V_{erb} + *Out*] constructions even in the most typical boundary-crossing scenes. Consequently, it seems safe to conclude that the expression of Manner versus Path in both L1 and L2 narratives (a) seems to be guided by how prototypical a boundary-crossing event is, and (b) that in prototypical boundary-crossing scenes a trade-off between Manner versus Path may be expected.

8.3. The Role of Motionised Constructions in Ground Elaboration

In Study 2 and 3, the analysis of Ground description was carried out with reference to the minus- versus plus-ground parameter. A comparison of the performances of the test groups is here carried out and summarised in Figure 8.4 below. In general, L1 speakers prefer plus-ground clauses (68.8%) to minus-ground clauses (30.3%). L2 speakers do not show a comparative preference and their data shows a fairly approximate level of minus-ground (41.6%) and plus-ground (48.9%) clauses:

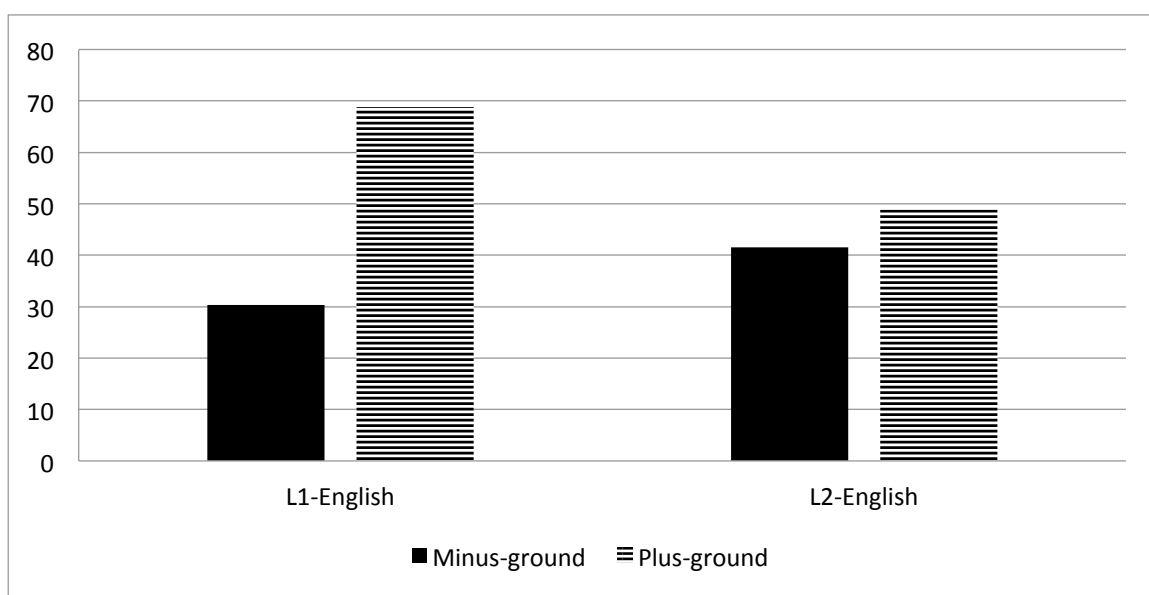


Figure 8.4: Minus- versus Plus-ground Clauses in L1 and L2 Narratives

An important question that follows from these results is why the two groups would behave differently towards Ground elements. Could this difference be motivated by the grammatical means each group is using? If each group is using different linguistic means, why may this be the case?

To answer these questions I compare the performances of L1 and L2 speakers with respect to the conceptual component *source* versus *goal* of motion. The main objective is not only to identify the means that each group has typically used but more importantly to establish whether there is a link between types of spatial constructions and degree of attention to Ground information while thinking for speaking. I take these components in turn.

8.3.1. The SOURCE of Motion

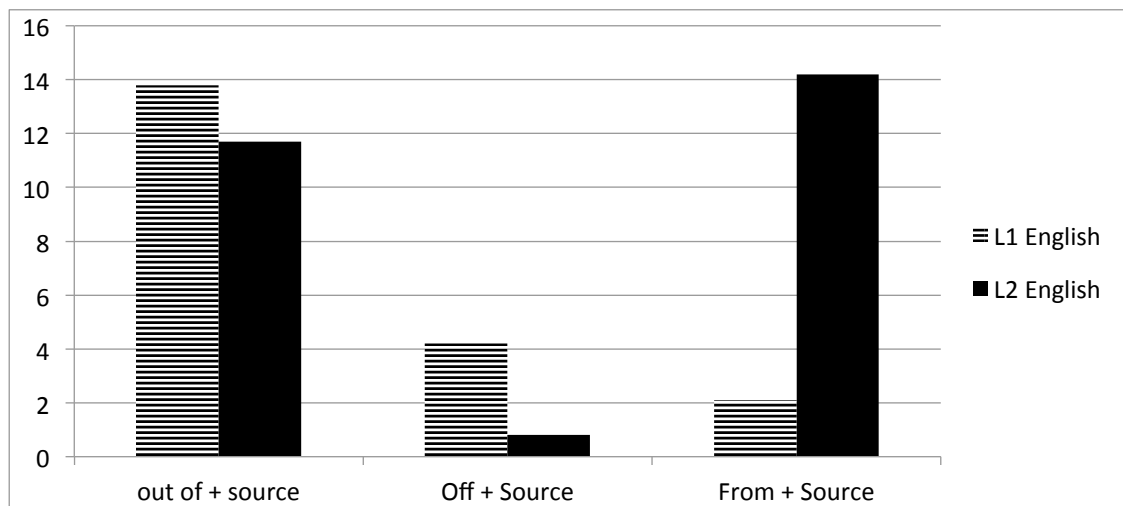
Table 8.3 below presents individual performances of L1 and L2 participants with respect to how nominals describing the onset of motion are introduced. The results show important differences between the two groups in terms of the use of [*off* + Ground] constructions and [*from* + Ground] constructions. L1 speakers prefer to use the former more so than the latter and the opposite is true for L2 speakers. Notably, L1 speakers scored higher than L2 speakers in terms of *off*-type constructions (4.2% versus 0.8%), while L2 speakers scored higher in terms of *from*-type constructions (14.2% versus 2.1%). Interestingly, when it comes to *out of*-type constructions, both groups performed fairly similarly (13.8% versus 11.7%).⁸²

⁸² Note that the slight differences between the two groups is partly due to the percentage in terms of number of *plus* clauses in each group. L2 speakers have 32 [*out of*]-type constructions compared to 33 instances for L1 speakers.

Table 8.3 Description of the Source of Motion by L1 and L2 Speakers

Participant ID	Out of + Source NP		Off + Source NP		From + Source NP	
	L2	L1	L2	L1	L2	L1
A	5	4	0	1	3	1
B	7	3	1	0	3	0
C	2	6	0	0	4	0
D	5	3	0	1	1	1
E	2	1	0	1	5	0
F	0	3	0	3	6	1
G	0	1	0	0	4	0
H	1	1	0	0	1	0
I	0	0	0	1	2	0
J	0	2	0	1	1	0
K	4	2	0	2	1	0
L	2	3	1	1	1	3
M	4	4	0	1	1	0
Total	32	33	2	12	33	6
Percentage ⁸³	13.8%	11.7%	0.8%	4.2%	14.2%	2.1%

Figure 8.5 provides a graphic representation of the results in Table 7.4. Note that L2 speakers have used an equal number of *out of*-type and *from*-type constructions. Note also the dramatic difference between L1 and L2 speakers in the use of *from*-type constructions:

**Figure 8.5:** Comparative Analysis of Constructions Describing SOURCE

With the above results in mind, we can ask why L1 and L2 speakers prefer to use different expressive means to describe the component SOURCE and whether that choice

⁸³ The percentage is worked out based on the results of plus-ground clauses presented in Table 4.6 for L1 speakers (231 clauses) and Table 4.7 for L2 speakers (281 clauses). The variations in terms of number of clauses have a degree of effect on the percentages. Given that L2 speakers have produced fewer plus-ground clauses than L1 speakers the percentages do not reflect the exact magnitude of the gap between the results.

has further consequences on how ground details are attended to and elaborated. One way to engage with these questions is to compare the contextual use of *out*-type, *off*-type, and *from*-type constructions in L1 and L2 narratives and to identify any regular patterns in the usage of these three types of constructions in the test groups. Could there be a division of labour between the use of *off*-type, *from*-type, and *out*-type constructions that speakers of English are expected to learn?

Analysis of the data suggests L1 speakers conceptualise *source* events in binary terms. L1 data reveals that *out of*-type constructions are in complementary distribution with the *off*-type constructions while the L2 data shows that [*out of*] and [*from* + Ground] constructions are used to describe both bounded and un-bounded landmarks. To justify this conclusion I compare *out of*-type constructions to *from*-type constructions and then I compare these to *off*-type constructions.

In this context, consider example (119). Participant L2-[A] is describing the source location of the possible sound of the frog:

- (119) He was listening or hearing a sound coming **from** a trunk beside him.
[A-T-M/72+3-22]

By using the deictic path construction [*come from*], L2-[A] does not specify whether the trunk is construed as a two-dimensional or a three-dimensional space. The outcome is hazy with regard to the source location of the frog. Could the frog be inside a hollow log, behind it, or somewhere in its vicinity? The preposition *from* is not specific about this kind of information.

Similarly, the uses of the preposition *from* in extracts in (120) are similarly indeterminate with regard to the ground nominals *the tree* and the *horns*. It is not made specific whether the fall of the boy has initiated within a three-dimensional space or a two-dimensional space:

- (120) a. An owl came *from* that hole and made the boy lose his balance
and fall from the tree [E-T-M/53+54+55-14]
b. This made the boy fall *from* the horns [E-T-M/70-20/1]
c. Tommy was ejected (.) *from* the horns into the river or
{a small river} [K-T-M/73-20]

Furthermore, although in (121) the preposition *from* is used to elaborate the onset of motion from within a three-dimensional space, the information about the three-dimensional nature of the *hole* is not owed to the preposition *from*. Rather the

information about the volume of Ground is computed on-line through general knowledge of what holes are like in real life:

- (121) a. Suddenly, an owl appeared **from** the hole. [C-T-M/45-14]
 b. An owl came **from** that hole. [E-T-M/53-15]

L1 usage of [*out of*] constructions, however, is always specific about the nature of ground elements. To illustrate compare examples in (120) and (121) with examples (122), (123) and (124) taken from L1 narratives describing the same ground elements. In all these extracts, the three-dimensional nature of the grounds *the tree* and the deer's *antlers* is explicitly coded by means of the construction [*out of*]:

- (122) An owl ...knocked him *out of* the tree and onto his back.
 [A-E-F/42-14]
 (123) And Callum falls *out of* the tree. [C-E-F/69-14]
 (124) The little boy falls *out of* his antlers. [A-E-F/52-20/1]

Based on this analysis, it is possible to suggest that the grammatical means favoured by each group suggest different **attentional patterns** to ground elements. When L1 speakers use an *out of-type* construction, the communicative intention is to encode information about the nature of the Ground –namely that it is three-dimensional and that the motion in question must necessarily involve the crossing of a boundary. When the L2 participants describe sources of motion, this level of detail is lost. It is inferred extra-linguistically (i.e. general knowledge) rather than by means of the spatial particle. In schematic terms, the two perspectives represented by *from-type* versus *out of-type* constructions in boundary-crossing situations may be presented as follows:

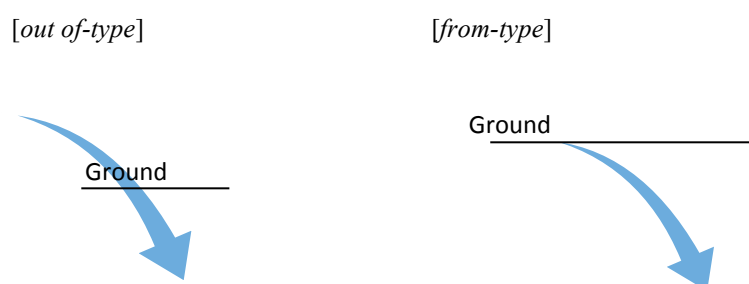


Figure 8.6: Schematic Representation of Perspectives Encoded by *from-type* versus *out of-type* Constructions

The *from-type* constructions have also been used by L2 speakers to express motion not necessarily related to bounded landmarks. For instance, L2 speakers tend to use *from-type* constructions to describe motion activities with reference to non-hollow

grounds such as *the boy*, *the doormouse*, *the bees* as in (125a), (125b), and (125c and d), respectively. In this case, they tend to combine the preposition *from* with the particle *away* to signal a departure of primary Figure **away from** a secondary Figure:

- (125) a. He escaped, running **from** the boy. [G-T-M/52-19]
 b. He was running away first **from** the doormouse, squirrel or whatever. [F-T-F/ 45-13]
 c. The boy kept on running **away from** the bees. [C-T-M/40-15]
 d. At that time the dog was running away **from** the bees. [A-T-M/50-14/15]

From-type constructions in L1 narratives seem to express three different onsets of motion: from within a three-dimensional space as in (125a), from the outer boundary of a three-dimensional space as in (125b), or ‘away’ from a non-hollow Figure as in (125d):

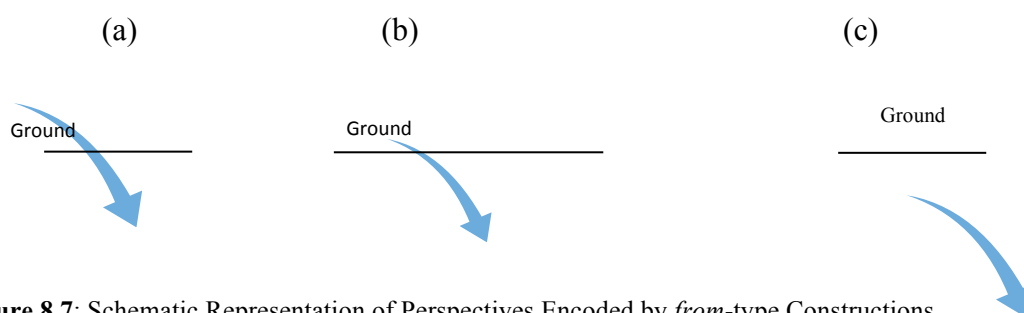


Figure 8.7: Schematic Representation of Perspectives Encoded by *from*-type Constructions

Before moving onto the analysis of the *off*-type construction, one final remark is needed about *from*-type constructions in L1 speakers. Three of the six L1 *from*-type constructions reported in Table 8.4 were used together with boundary-crossing constructions. For instance, in (101a) L1-[D] first uses a [P_{ath} V_{erb} + *out*] construction followed by a *from*-type prepositional phrase. In (101b) the same participant reverses the process in the sense that the construction [M_{anner} V_{erb} + *Out*] is intercepted by the construction [*from* + G_{round}]. In this sense, the information about the three-dimensional nature of garden is preserved. (101c) describes a different usage. In this case L1-[A] uses a [P_{ath} V_{erb} + *from* + G_{round}] construction and then adds another clause to express the boundary-crossing event:

- (126) a. The big owl **came out** *from* the tree. [D-E-F/32-14]
 b. So the boy **ran** *from* the garden **out, into** a nearby field.
 [D-E- F/20+08/09]
 c. The frog decided to escape *from* the jar, and he quietly **crept out**
 [A-E-F/12+13-02]

According to Talmy (1985), constructions of the type [P_{ath} V_{erb} + PP_{from}] are typical verb-framed constructions and tend to be dispreferred by L1 speakers of English. The current finding supports this prediction. The following extract is the only example in which an L1 speaker has used a path verb in combination with *from* to describe a boundary-crossing scene:

- (127) He **gets up** and he **escapes** *from* his little jar [E-E-F/08+09-02]

With the TfS value of *from*-type versus *out of*-type constructions examined, I now turn to *off*-type constructions. Table 8.4 showed that 10 of the 13 L1 speakers have used motion verbs with the preposition *off* compared with only two L2 participants. Furthermore, Figure 8.8 below shows that the spatial particle *off* has combined with 12 different verbs in L1 data. This shows that the satellite *off* – as well as being **preponderant** in L1 narratives – is also used **productively**:

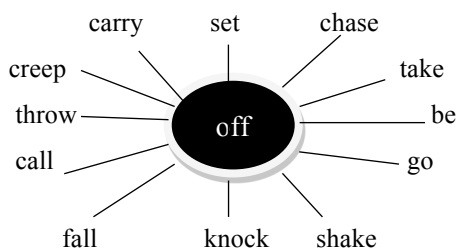


Figure 8.8: Productivity of the Satellite *off* in L1 Speakers

This raises two questions. First, what function does the satellite *off* perform in in L1-TfS? Second, why have *off*-type constructions rarely featured in the L2 data?

To answer these questions, we should first examine the contextual use of *off*-type constructions as compared to *out*-type constructions on the one hand, and, second, re-examine the TA data. First, the contextual use of *off*-type constructions in the L1 data suggests that it is used contrastively with *out of*-type constructions. *Off*-type constructions are used to mark the onset of motion as starting from the outer boundary of a certain ground, while *out of* constructions are reserved for the description of boundary-crossing events. To illustrate, in (128) subject L1-[F] is describing the dog's

fall. By using the satellite *off*, rather than *out of*, [F] projects an image that suggests the Figure was located at the exterior boundary of the window as opposed to inside the window.

(128) He falls *off* the window. [F-E-M/18-06]

Similarly, in (129a) and (129b) subjects L1-[F] and L1-[K] have used the satellite *off* to project images in which the trajectories of falls start from the outer boundary of the tree and the cliff, respectively. A different picture of the nature of the ground element and the point from which motion has initiated emerge when the spatial particle *off* is swapped for *out of* as in (130a) and (130b) respectively:

(129) a. *Knocks* the bees *off* the tree. [F-E-M/42-12]
b. Oh dear! the boy *falls off* the cliff. [K-E-F/46-20]

(130) a. *Knocks* the bees *out of* the tree.
b. The boy *falls out of* the cliff.

Consequently, the L1 data suggest that: (a) there seems to be a division of labour in the way *off* and *out of* constructions are used and (b) that this choice seems to be systematic in L1 English. Further evidence for the division of labour between *off*-type and *out of*-type constructions in L1 English can be seen in clauses where L1 speakers combine these constructions within one clause. By using what I term **two-tiered** constructions participant L1-[A] elaborates the trajectory of the fall by tracing the stages introduced by means of the spatial particles *out of* and *off* respectively:⁸⁴

(131) a. An owl flew out of one of the holes in the tree [A-E-F/40-14] ...
and knocked him **out off** the tree [A-E-F/42-14]
b. The little boy fell **off out** of his antlers [A-E-F/52-20]

Two-tiered constructions of the type presented in (131) are not found in the L2 data. Moreover, the L2 data records only three instances of *off*-type constructions, two of which were used by one participant, [L]. Two instances –namely (132a) and (132b) – about the same referent ground (i.e. *the window*):

(132) a. All of a sudden, the dog fell onto the floor
{or fell off the window} [L-T-F/28-06/29-07]

⁸⁴ Berman and Slobin (1994) call these types of constructions “doubly elaborated” locative trajectories. They briefly mention these constructions with reference their developmental findings. They claim a noticeable change in children’s TfS is an increase in the use of “doubly elaborated” locative trajectories (1994: 161). They are defined as “VERB + PARTICLE + PREPOSITIONAL PHRASE, e.g., *hanging down + from his neck...*, *look down + at a gopher hole...*” (1994: 161).

b. He jumped off the window [B-T-M/26-05]

If (a) *off*-type constructions are in complementary distribution with *out of*-type constructions in English, and (b) if the spatial particle *off* combines with verbs as freely as Figure 8.8 suggests, then why are they so scarce in the L2 data?

The Tunisian data reported in Study 1 (Chapter 5) suggests that TA has only one word to describe source locations – namely, the preposition *min* ‘from’. The preposition *min* ‘from’, therefore, is unspecific about the nature of the ground from which motion is initiated. Its use does not allow for a discrimination between one-, two-, or three-dimensional spaces. This explanation is consistent with the schematic representation of the *from*-type construction in Figure 8.8. Consequently, it seems plausible to conclude that a lack of conceptual basis for *off*-type spatial meaning in TA may well be the reason why L2 speakers have failed to appreciate its saliency in L1-English thinking-for-speaking behaviour.

8.3.2. The GOAL of Motion

The particles *off* and *out* enter into two-tiered constructions with particles other than one another. This is especially relevant when the construer of the event focuses on targets and goals of motion. In this case, L1 speakers tend to combine constructions describing source – namely $M_{-(ised)}[V_{erb} + off]$ or $M_{-(ised)}[V_{erb} + out\ of]$ – with prepositional phrases headed by a variety of path particles/prepositions. To illustrate, consider the examples in (133):

(133) a. The frog leapt out of the jar and run *off into* the night
[H-E-M/06+07-02]

b. The little boy was not very impressed. They set *off into* the woods
with the little boy calling out the frog [H-E-M/18 +19-08]

In (133), subject [H] uses two spatial particles to describe a two-stage trajectory. The first trajectory describes a movement from the outer boundary of a source location. The second step describes the end goal of the motion event. In both (133a) and (133b), the speaker gaps the source of motion. Instead, [H] explicitly formulates the end locations by means of the nominal *the night* and *the wood*, respectively.⁸⁵

⁸⁵ Notice also that the nominal *the night* in (134a) is non-tangible. By using the satellite *into*, participant [H-E-M] construes the event as a boundary-crossing event.

L1 speakers' tendency to gap source locations when target locations are in focus can also be seen in other two-tiered constructions as well. In the following extracts the spatial particle *off* combines not only with *out of* and *into*, but also with *towards*, *back*, *down*, and *onto*:

- (134) a. Freddy went ***off towards*** the tree [J-E-F/39-13]
 b. And him and his dog set ***off back*** home [K-E-F/57-28/9]
 c. The little boy fell ***down, off*** the branch [J-E-F/46-14]
 d. He fell ***off (...)*** ***onto*** the floor [E-E-F/39-14]

As the examples in (133) and (134) show, two-tiered constructions tend to describe motion in terms of two stages: a *source* that is **gapped** and a *goal* that is **lexically coded**. Two-tiered constructions have important implications for the relative saliency of sources and goals in L1 versus L2 narratives. Typically, the L2 participants in this study have not used comparable constructions. One reason for this is that only two L2 participants have used the path particle *off* (see Appendix 7 for subjects L2-B and L2-L).

Needless to say, narrators need to elaborate on target locations and goals in order to move the story forward. To do this, L2 speakers tend to compensate for the lack of two-tiered constructions describing goals. They often do so statically, by means of existential expressions or *find* verbs as in (135) and (136). Alternatively, goals are talked about dynamically by means of common, bare path or manner verbs with or without a spatial particle, as in (137):

- (135) [existential *there*]
 a. Fortunately, *there is* a river [E-T-M/74-21/22]
 b. It seems that now he *is in* the forest [M-T-M/ 51-17]
 c. *There was* a big hole on the ground [B-T-M/40-10]
- (136) [*find* verbs]
 a. He *found* himself on the head of the deer [G-T-M/49-18]
 b. They *found* a hole in a tree trunk [C-T-M/34-12]

- (137) [bare Path verbs]
- a. They walked, walked [27] until they *reached* the woods. [D-T-M/28-08/9]
 - b. He *reached* a sort of a cliff or something. [K-T-M/71-19]
 - c. Peter decided to go outside and he *headed to* the woods. [J-T-F/19+20-09]
 - d. The boy *went to* the forest. [I-T-M/17-08]
 - e. Tommy *rushed to* his poppy. [K-T-M/24-07]
 - f. He fell *in* the river. [I-T-M/48-22]
 - g. He fell *on* the ground. [D-T-M/21-06]
 - h. He jumped *on* a big log. [M-T-M/ 69-25]

One may argue that all the above comparison did was demonstrate that L1 and L2 speakers express the same semantic content differently (e.g. *run from the jar* versus *run out of the jar*). To some extent, this may be seen as uncontroversial. However, if one gets to show that *motionisation* has consequences on which aspects of the same reality get picked out and which do not, then a stronger case for L1 influence on L2 learning may be argued for. It is to this matter I now turn.

8.4. The Influence of Motionisation: Further evidence

What makes an element of a scene stand out when thinking-for-English?

A fundamental claim of the Whorfian thesis and the TfS hypothesis is that linguistic categories affect behaviour. One type of behaviour is verbal thinking. In this section, I depart from this assumption. I ask whether the ability semantically coerce verb meanings into the expression of motion has direct bearings on what gets picked out for TfS purposes. In order to address this question I compare the performances of the L1 and the L2 participants in this study with reference to *The gopher scene* presented in Figure 8.9. To appreciate what I am about to report, I invite you to take part in this experiment. Consider the picture below (i.e. Picture 10), formulate your take on what is happening especially with regard to the boy, and then read on:



Figure 8.9: Picture 10 (*The gopher scene*)

As picture 10 shows, the boy is kneeling down by a hole –presumably engaging himself in an act of ‘sound emission’ indicated by the position of the boy’s left hand relative to his mouth. Despite this seemingly straightforward situation, the responses obtained from the two test groups were not the same. Most L1 English participants have motionised the act of sound emission. They have specified the manner in which the search activity is taking place (the voice ‘travelling down’ the hole). L2 participants, however, have left this level of detail to be inferred from context –if at all. To illustrate this point, consider the following two extracts from L2-[C] and L1-[J]:

- (138) [...] they reached a tree where he **found** a beehive (...) and a hole. The boy tried to **find** his frog in the hole [C-T-M/32+33+34-10]
- (139) Freddy found a small hole, and thought that the frog might have gone down the hole. He **called down** the hole [J-E-F/ 31+32+ 33-10].

While in extract (138) the L1’s attention is directed towards the sound-emission event, in extract (139) the L2 is drawn to the actual searching event. To this extent, L1-[J] motionises the non-motion verb *call* by combining it with directional satellite *down*. While L2-[C] seems oblivious to the sound emission event. Instead, the focus of attention is drawn to the general goal of the plot, namely finding the frog.

This TfS variation between L1 and L2 English speakers is also evidenced in the performance of other participants. As extract (140) shows, participant [F] also focuses on the event of sound emission. However, he does this by adding more manner nuances to the sound emission act. The verb *shout* differs from the verb *call* in the sense that the former adds additional elements of ‘intensity’ and ‘force’ to the voice emission. Just like L1-[J], L1-[F] motionises the verb *shout* by means of the particle *down*. Equally, just like L2-[C], in (141) L2-[A] is also oblivious to the act of ‘calling’. Instead, he takes a perspective on the search event by focusing on the act of ‘finding’:

(140) And the boy finds a little hole. He **looks down** the hole, and, he **shouts down** the hole [F-E-M/27+28+29-10]

(141) He **found** a hole in the ground, and, he started to **look for** the frog [A-T-M/36+38-10]

To develop this account further, in extracts (142) and (143), L2-[J] and L1-[C] are also interested in different aspects of the event.⁸⁶ In extract (117), L2-[J] uses the action verb *check* to express the thought of physically ‘searching’ for the frog rather than through the act of calling. This stands in sharp contrast with L1-[C], who, by using the verb *echo* in combination with the directional particle *down*, seems to be following the norm set so far by other L1 speakers:

(142) a. As he was searching, he perceived a hole in the floor. So he went there. [J-T-F/23+22-10]

b. And, he was **checking** in the hole in the ground [J-T-F/ 31-11]

(143) (he) thinks , maybe Fergus **is down** there: Fe:rgus. So, his voice **echoed** Fe:rgus, Fe:rgus, Fe:rgus, Fergus, (..) **down** the hole. [C-E-F 46-10]

Extract (143) merits further analysis. The construction [*echo*+ *down*] is not only significant in terms of the manner and path information it expresses, it also signals a conceptual ‘bond’ between the two constituents in the mind of the L1 English speaker. The construction [*echo* + *down*] is interrupted first by the inclusion of the noun *Fergus* four times and then by a short pause before the path particle *down* is uttered. The inclusion of these segments should have added more ‘cognitive load’ and therefore should make it easier for the speaker not to encode the path satellite *down*. However, despite the relative distance incurred by the sequence *Fergus*, *Fergus*, *Fergus*, *Fergus* and a pause, L1-[C] did not lose track of the construction but added the particle *down*.

⁸⁶ An alternative approach to these kinds of variations is the windowing of attention (Talmy, 1996). One can say that native speaker and non-native speakers foreground some aspect of this scene while backgrounding others, and the opposite is true for the L2 speakers.

This can only mean that the schematic construction $M_{(ised)}[V_{erb}]$ is **cognitively bonded** in the mind of the L1 speaker.

Would the L2 users in this data have followed up with a directional particle after other meanings and time followed the main verb? Based on the analysis of motion verbs in L2, I can tentatively say that an L2 speaker would probably have added a locative expression (i.e. **in** the hole) rather than a directional one (i.e. **down** the hole). For instance, in (144) the act of calling for the frog is described **statically** by means of the locative preposition *fī* ‘in’. As such L1-TA uses the locative preposition *fī* ‘in’ to describe the action involving voice emission. This suggests that in TA ‘voices’ don’t travel ‘through/across’ spaces but they do so ‘within’ bounded spaces:

(144) [H-T-F/ 10-35]

Itful *lqa:* *ga:r*
ART=boy find.PF.3M hole
‘The boy has found a hole’

q3ad *ynæ:di* *3læ=hæ* *fī=l=ga:r*
remain.PF.3M call.IMP.3M on=3F in=ART=hole
‘The boy found a hole and started calling down (it)’

So far, the arguments about the influence of motionised construction have been constructed with reference to the verbs *find*, *search*, and *check* versus *call* and *echo*. However, further analysis of the gopher scene shows that the ability to motionise verbs of vision can also influence which elements of a scene are selected for verbalisation. The act of looking does not in itself involve a translocation of Figures in space as typical verbs of motion like *walk* or *run* do. Yet, five L1 speakers in this study have used this verb with directional particles in ways that are not paralleled by L2 speakers. Extracts in (145) illustrate this point:

- (145) a. So they decided to carry on, and he **looks down** a little hole
in the ground [C-E-F/ 57+58-10]
b. He **looks down** the holes [F-E-M/28-11]
c. They looked up high and they **looked down** low [H-E-M/21+22-10]
d. Oh! Timmy **looked down** a hole [I-E-M/27-10]
e. He ran into the forest and **looked into** a hole in the
ground [D-E-F/27+28-10]

As extracts in (145) show, L1 speakers have used the verb *look* with the directional particles *down* and *into*. This process draws attention to the path/direction the ‘looking’ is following. When compared with the use of the same verb by L2 speakers, a different picture emerges. As such, in (146) L2-[L] uses the verb *look* statically by means of the

adverb of place *inside*. This contrasts sharply with the L1-[D] in (120e) where the use of *into* projects a dynamic picture describing the crossing of a boundary:

- (146) The boy noticed a mole hole, and started **looking inside**
[L-T-F/ 39/40-10]

Analysis of the verbs *call* and *look* as used in the gopher scene adds weight to the argument that there is a clear variation in the TfS preferences of L1 and L2 speakers of English in this study.

The motionisation of verbs of vision and sound emission is not confined to the gopher scene, but it is more preponderant in the L1 data than the L2 data. To illustrate, consider the examples in (147) and (148) describing the window scene. Recall that the description of the fall of the dog revealed that L1 speakers conceive of the window as a bounded landmark with a boundary to be crossed, while L2 speakers did not. These opposing perspectives are also reflected in the motionisation of verbs of ‘sound emission’ and ‘vision’ in this scene. In (147), for instance, L1 speakers predominantly have traced the act of ‘vision’ through the boundary of the window by means of the dynamic construction *out of*:

- (147) a. The little boy **looked out of** the window, and still he couldn’t find his frog. [A-E-F/25+26-05]
b. He **looked out of** the window. [E-E-F/17-05]
c. They **look out of** the window. [L-E-F/16-06]
d. Freddy **looked out of** the window. [J-E-F/12-05]
e. He **looks out of** the window. [M-E-M/13-05]

Similarly, extracts in (148) show other L1 speakers focusing on the act of ‘calling’ by tracing the trajectory of the voice through the boundary of the window, the garden and beyond:

- (148) a. They **called out of** the window but the frog was gone.
[B-E-F/10/11-05]
b. They **called out**: Frog, where are you? [G-E-F/11+12-05]
c. They **called out of** the window, but the frog was nowhere to be found.
[A-E-F/07-05]

In describing the same event, L2 participants focused on the activities of ‘calling’ rather than ‘looking’. Although eight participants described the act of ‘voice emission’ using verbs like *call*, *shout*, and *scream*, not a single case of motionisation of these verbs was recorded. Examples in (149) and (150) illustrate this point:

- (149) Then, when the boy was **looking from** the window,
calling for his frog: “Frog! Oh, Frog”. [G-T-M/21-05]

- (150)
- a. He then opened the widow and started **screaming for** the frog.
[A-T-M/16+17-05]
 - b. He opened the window and **shouted**: “Frog, where are you?”
[C-T-M/09+10+11-05]
 - c. He opened the window and started **calling for** his pet frog.
[E-T-M/17+18-05]
 - d. The boy opens the window and **calls for** the frog.
[H-T-M/09+10-05]
 - e. Then, Peter opened the window to **call for** the frog Elvis.
[J-T-F/19+20-05]
 - f. They opened the window and Tommy started **calling** Froggy.
[K-T-M/19+20-05]

This raises two points. First, not motionising verbs of vision and sound emission has direct consequences on the level of attention to ground elements in a narrative (i.e. compare the L2 *He shouted* versus the L1 *He shouted out of the window*). This is consistent with my discussion of the role of motionisation in explaining (a) why grounds tend to be more abundant in L1 than L2 data, and (b) why grounds tend to be introduced more dynamically in L1 narratives. Second, although the majority of L2 speakers did not motionise the verb *look*, three L2 participants have motionised the verb *call* as follows:

- (151)
- a. Here, the boy **called out** the name of his pet frog. [D-T-M/17-05]
 - b. The boy was shouting, **calling out** his frog (.) *in* the house and *out* in the window. [M-T-M/18+19-05]
 - c. They both went to the window and started **calling out** for the frog.
[L-T-F/23+24-05]

Note the different uses of the construction [*call out*] between what is the norm in L1 narratives and the extracts in (151). In all three extracts, the ground element *the window* has been gapped. This makes it difficult to tell whether the activity of calling is conceptualised as ACTION via MOTION or whether it is being treated as a frozen construction (i.e. a phrasal verb) expressing an activity rather than ACTION via MOTION.

One final scene may be analysed to further illustrate the TfS differences between the L1 and L2 participants in this study. *The log scene* (pictures 24-26) shows the boy climbing over a log in order to check whether the noise he keeps hearing is that of his pet frog. A comparison of L1 and L2 data shows that 10 of 13 L1-English participants have motionised the verb *look* by means of the spatial particle *over* as follows:

- (152) a. There's something behind here [...] I am going to **look over**.
[E-E-F/65-67-25]
b. He **looks over** this old log {where noises are coming from}.
[F-E-M/86+87-25]
c. When the little boy and his dog **looked over** the log, they saw a frog.
[A-E-F/ 63+64-26]
d. He **looked over** the log. [D-E-F/62-25]

However, L2 data does not include a single case of motionisation with the spatial particle *over*. Instead, the norm was to use verbs of vision with the locative adverb *behind*. The following are illustrative examples:

- (153) a. He **went** to a huge branch and he **looked behind** the huge branch. [J-T-F/69-25]
b. He heard something that sounds familiar to him... cause when he **saw behind** the tree trunk he saw a couple of frogs. [F-T-F/95-26]
c. He swam until he reached a tree trunk. [D-T-M/78-24]...
They **looked behind** the trunk [D-T-M/82-25]

One may counter that in Chapter 3 arguments were provided which suggest that the construction [*look behind*] expresses motional meanings after all. Following Gruber (1967), [*look behind*] means look 'to a place' behind and in this way expresses a directional meaning rather than a goal location. However, it is interesting that even when other motion verbs have been used to describe this scene, the construction [*M_{otion}V_{erb} + behind*] featured in L2 TfS behaviour but not in those of the L1 participants.

Additionally, when verbs depicting manner of motion are used, L2 speakers tended to use them in their bare form while L1 speakers tended to use them in combination with the satellite *over*. Example (154) illustrate this for L2 speakers and examples in (155) for L1 speakers:

- (154) They both **climbed** that tree trunk. [K-T-M/82-25]
(155) a. He **climbed over** a log and Peppy followed. [J-E-F/ 54+55-25]
b. They crawled to the shore and they **scrambled up over** a log.
[I-E-M/42+43-24]
c. He saw a big rotten log on the ground next to the river and they **went over** to it. [D-E-F/46+47-25]

Examples (154) to (155) raise the question of why L1 speakers have predominantly used the spatial particle *over* to describe this scene while none of the L2 participants did.

Examination of TA data from Study 1 show that Tunisians did not describe events in the log scene as L1 English have done. If Tunisian monolinguals focused on the translocation of the boy, their tendency was to use path verbs like *wsil* ‘reach’ or manner verbs like *tla3* ‘climb’ or *rkib* ‘mount/ride’, as follows:

(156) [J-T-F/118-25]

Lqa:w jrana w m 'a:=hčé jrana oħra taħt l=gosn
 find.PF.3M.PL frog CONJ with=3F.PR frog other under ART=trunk
 ‘Under the branch, they found a frog together with another frog’

(157) [G-T-M/78-25]

Rkib fu:q l=3atga mta3=iš=šujra
 Mount.PF.3M on.top ART=trunk of=ART=tree
 ‘He climbed over the tree trunk’

(158) [D-T-F/134-25]

Tla3 min fu:q iš=šujra min ġa:di
 climb.PF.3M from on.top ART=tree from there
 ‘He climbed over the tree trunk.’

Like L1 English, L1 Tunisians used verbs of vision. However, unlike L1 English, the tendency in the case of L2 participants is not to motionise verbs of vision. Rather, the norm is to use the verb *tal* ‘look’ together with the preposition *fu:q* ‘on.top’ or the locative adverb *wra*: ‘behind’:

(159) [B-T-M/100-25]

Bish natl3u: ntullu 3læ:=hæ
 FUT climb.IMP.2PL look.IMP.2PL on=her
 ‘We will climb over and look for it’

In short, it seems plausible to trace the lack of conversion between L1 and L2 TfS behaviour to the grammatical affordances of mother tongues. L1 English provides its speakers with the spatial expression *over*, while TA does not have an equivalent particle to this lexeme. More importantly, as Figure 8.10a shows, the particle *over* has combined with various verbs in the L1 narratives but not in the L2 narratives (8.10b). These comprised of both ‘basic’ and ‘extended’ Path and Manner meanings:

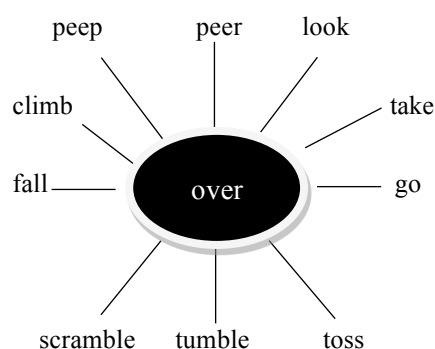


Figure 8.10a: Productivity of *over* in L1 TfS

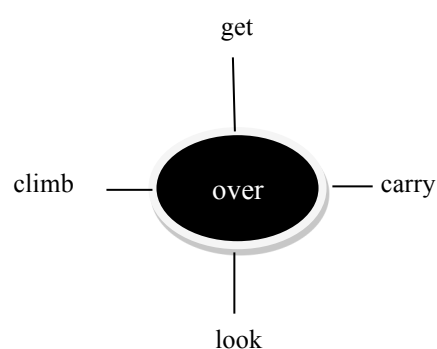


Figure 8.10b: Productivity of *over* in L2 TfS

An important difference between L1 and L2 speakers, then, is their tendency to *motionise* events. This is especially relevant for verbs whose basic meanings are marginally ‘motional’. The lack of convergence between the spatial particles in TA and English seems to have an influence on the extent to which the conceptual manipulation of motionisation is put to use when describing motion-related events in English. These TfS differences are especially apparent when describing boundary-crossing situations. In these situations, the characteristic L1 construction [$M_{anner} + S_{patial} P_{article}$] is dispreferred both in situations where Figures are concrete (e.g. owl, boy) or metaphorical (e.g. voice, vision).

8.5. Summary

This chapter compared and contrasted the main findings of Study 1 (Chapter 5), Study 2 (Chapter 6), and Study 3 (Chapter 7). The results revealed important thinking-for-speaking variations between the two groups in this study. Despite using English as the sole medium of narration, L1 English speakers and TA speakers of L2 English described situations differently. Perhaps the most important difference between the two groups lies in the conceptual strategy of motionisation. L1 speakers demonstrated an ability to combine verbs and satellites in ways that allow them to provide added details about Manner and Path. Motionised constructions are preponderant and productive in L1 narratives. Native speakers of English seem to be so geared towards the expression of Manner, that almost any verb may be coerced into expressing a Manner of Motion meaning. These findings are significant and have theoretical as well as pedagogical implications. In my next and final chapter, I develop these thoughts and provide a synthesis to this work.

9. ‘To Motionise’ Or ‘Not to Motionise’: Is this the Main Question Facing L2 Learners of English and their Educators?

Human languages are unique among animal communication systems in their impressive diversity [...]. If we suppose that all languages are underlyingly the same due to a tightly UG [Universal Grammar], except perhaps for some simple parameter settings, it appears to be an unexplained and cruel twist of fate that language learners must face such rampant superficial variation.
(Goldberg 2013: 480)

Typological differences in the conceptualisation of motion have direct bearings on the theoretical debate about issues of transfer and issues of “truncated learning” in SLA, specifically raising the question whether syntactic and semantic differences influence modes of thinking-for-speaking to such an extent that they may cause some form of truncated L2 learning. This thesis has explored these issues and has gathered evidence that suggests that L1 language habits are strong. More importantly, this thesis has shown that L1 TfS habits present TA speakers aiming to acquire native TfS norms in English with a serious obstacle. To the extent that learners may consider “native-like” attainment a desired goal, the evidence reported in this research supports the argument that mother-tongue training represents a serious hurdle to acquiring target language norms of TfS, especially when the two linguistic systems are typologically different.

From this follows my claim that research in SLA should address the pedagogical implications of thinking-for-L2 speaking. Consequently, in this chapter, I spell out the contributions this study has made to our understanding of language and conceptualisation matters in SLA, and, how they may inform current concerns in English language teaching. This is done in three stages. First, I summarise the main findings (9.1). Next, I provide a general discussion (9.2) that homes in on theoretical implications to this study (9.2.1) as well as pedagogical ones (9.2.2). Finally, I add some concluding thoughts and express limitations to this research (9.3).

9.1. General Summary

Given that the standing of Tunisian Arabic has never been investigated with respect to Talmy’s typology, the first question that I addressed was whether TA could be rightfully categorised as a verb-framed language. Consequently, study 1 investigated the TfS habits of 13 TA monolinguals based on the children’s book *Frog, where are you?*

(Mayer 1969). The collected data showed, as expected, that TA lexicalises the core semantic component Path in the main verb. It also showed that the use of manner verbs has obeyed the boundary-crossing principle. Based on these two factors, I have concluded that TA is, indeed, a **verb-framed** language.

However, I have also argued that, beyond this general conclusion, every other piece of evidence suggests that TA is best thought of as an **atypical** member of its group. The collected data has shown that idiosyncratic linguistic behaviour of TA speakers could be seen in the types, number, and the descriptive quality of path and manner verbs. I have suggested that the description of Manner seems to be domain-related rather than absolute. Arguably, the semantic domain meaning ATTACK via MOTION (section 5.5.2) shows a higher types-per-token ratio than the data reported for Spanish and English (Berman and Slobin 1994). This implies that the semantic density of motion-based domain (e.g. ATTACK versus PLACEMENT versus CAUSATION) could be domain-related.

The data has also shown that where they didn't use manner verbs, TA narrators have used different types of manner-oriented constructions to elaborate this conceptual component further. As far as attention to ground details is concerned, TA has used as many minus-ground clauses as plus-ground clauses. Plus-ground clauses included either source or goal of motion, but not both. I have suggested (section 5.5.5) that TA does not encourage its speakers to use compacting strategies. This is consistent with what has been reported for other verb-framed languages (e.g. Berman and Slobin 1994).

On the other hand, I have also pointed out that in longer stretches of discourse where a journey is being described (e.g. *The cliff* scene), Tunisian-speaking participants have introduced grounds elements (i.e. both *the cliff* and *the lake*) rather dynamically. They have also segmented the journey in question into more paths than expected for verb-framed language speakers. These findings go contra to Slobin's (1996a) predictions –namely: that (a) verb-framed language speakers focus on settings rather than dynamic motion, and (b) they tend to mention fewer segments of a journey due to a lack of compacting strategies, on the one hand, and a corresponding limited number of path satellites, on the other.

Two hypotheses were proposed to account for these findings. First, in terms of word order, I suggested that TA provides its speakers with a choice between a verb-object (VO) or a subject-verb (SV) word-order. Building on the work of Brustad (2000), I have argued that the choice between verb-initial rather than noun-initial sentences is not random in TA but seems to be motivated by a division of labour at the level of

discourse. VO clauses are usually used to describe events, while SV word-order is predominantly used either to signal a change of topic or to provide new information. It seems that the mere availability of word-order choice in TA has a certain effect on the degree of attention to manner and path details when thinking-for-speaking in longer stretches of discourse.

The second hypothesis I have advanced concerns what Brustad (2000) calls *compound-verb phrases*. This refers to the use of two or more motion verbs within one clause without the aid of a coordinating conjunction. The Tunisian data confirms that these types of constructions are used rather extensively in TA. Core motion verbs like *mšæ* ‘go’, *jæ* ‘come’, *qa:m* ‘stand up’, and *q’ad* ‘sit down’, or regional variations of these, combined with other verbs of motion to fulfil various semantic and narrative functions. As suggested by Brustad (2000: 10), these functions vary from signalling the onset of a motion activity, to signalling the finality of it, to marking a sudden decision to fulfil the activity executed by the verbal participle which immediately follows it. Stringing verbs and clauses together to describe a single motion event is a strong feature of the TfS behaviour of the TA participants. Hence, I have suggested that this perhaps explains why beyond the clause level, the narrators in this experiment behaved unlike other verb-framed speakers with reference to the segmentation of a journey. Stringing clauses together does not seem to exert a substantial cognitive load for these speakers.

With the typological status of TA determined and the TfS of its speakers identified, in Chapter 5 I investigated the TfS behaviour of 13 native speakers of English. A primary concern of this experiment was whether further insights into the TfS behaviour of native speakers of English could be gained if a broader analytical approach than Berman and Slobin’s (1994) were adopted. A theoretical discussion of various scholarly works on the behaviour of English verbs and their argument structure (section 3.3) had suggested that there is more to motion-event description than has been considered by traditional approaches to TfS. Particularly of note, a unique feature of English verbs is that they tend to occur in different argument structure patterns. This has implications for how the verbs are interpreted. Verbs of vision like *see* and *look* – when they occur within spatial constructions – tend to encode “motional” meanings (Gruber 1967). Similarly, ‘sound emission’ verbs have their basic meanings extended when accompanied by spatial adverbials (Levin 1993). I coined the term *motionisation* to denote a “dynamic” process whereby native English speakers manipulate constructions to fulfil “on-line” TfS demands. A focus on the dynamic aspect of conceptualisation is

different from the intended theoretical underpinnings behind the terms *semantic coercion* and *accommodation*. These constructs seem to refer to a language-internal process which is distinct from TfS behaviour. As Shohamy (2006) has pointed out, “languages do not stand by themselves; they are the products of the people who use them and interact and negotiate through and with them” (2006: 192). To the extent that the phenomenon of semantic coercion materialises only by virtue of its speakers, motionisation seems to be a descriptively appropriate notion for TfS research.

With this notion in mind, a comparison of the TfS behaviour of each test group revealed several interesting results. First, for most of L2 speakers the use of verbs and satellites constructions was limited to a fixed set of ‘conventionalised expressions’. Eight out of thirteen participants hardly ever expanded the original constructions into novel ones. This is different from L1 speakers who have demonstrated an ability to combine different types of verbs with various satellites and/or prepositions in such way that increased their construction stock –quite dramatically at times. To the extent that productivity –the ability to use motionised constructions creatively – is indicative of levels of cognitive entrenchment, the L2 speakers in this study seem to have fallen short of acquiring the linguistic strategy of motionisation.

When motionisation was investigated with respect to ground elaboration (section 8.3), further TfS variations between L1 and L2 speakers were identified. First, in boundary-crossing situations L1 English speakers have overwhelmingly and systematically used Manner-based motionised constructions while L2 learners hardly ever did so. This confirms that L2 speakers did not manage to ‘un-learn’ the boundary-crossing constraint inherent in their L1. Second, L1 English speakers tend to be specific about whether the onset of motion involved boundary-crossing or not, while this detail is missing in L2 narratives. This was especially evident in how *sources* of motion were elaborated. L1 speakers tend to opt for a division of labour in the use of the particles *off* and *out*. *Off* is reserved primarily for the expression of motion from the ‘outer’ boundary of the Ground (i.e. lack of contact via separation from the Ground), while *out* tend to be reserved for motion from within a three-dimensional spaces (i.e. via the crossing of a boundary).

This division of labour was not found in L2 narratives. L2 speakers hardly ever used the particle *off* in their TfS behaviour. Analysis of TA data showed no equivalent term to this linguistic concept. Instead, TA has a single particle that may be glossed as an equivalent to *from* in English. The spatial particle *min* ‘from’ expresses onset-of-

motion-meanings involving both boundary crossing and non-boundary crossing events. I concluded that a lack of a conceptual basis in TA might have hindered these L2-English speakers from appreciating the contrastive distribution of *off* and *out* in English.

Another way in which TA ‘training’ has surfaced in L2 TfS concerns the spatial particle *over*. While L1 speakers have used different types of motionised constructions with the satellite *over*, L2 speakers hardly ever did so. This was especially evident in the way the test groups described the scene where the event involved the boy and his dog in relation to a log (the ground/reference point). In this case, L1 English speakers have used a variety of motionised constructions based on verbs like *go*, *climb*, *cross*, *look*, and *peep* and the satellite *over*. L2 speakers, however, have used constructions based on locative prepositional phrases like *behind a tree trunk*, and *on the tree trunk* – prepositions that focus on end locations rather than on tracing a trajectory of MOTION or [ACTIVITY via MOTION]. Just as was the case for the spatial particle *off*, there is no equivalent for *over* in the TA data. This offers an explanation for why *over* has not surfaced in the narrative behaviour of TA speakers when thinking-for-English.

To test the extent to which the ‘availability’, or conversely, the ‘lack of availability’ of relevant motionised constructions could influence verbal behaviour and attentional patterns, I compared the performances of the test groups with reference to *The gopher scene*. The results showed that L2 speakers have focused on activities of ‘searching’ and ‘finding’ without any specification about the medium/means/manner of how the search is taking place. L1 speakers, however, tended to be explicit about the Manner in which the ‘searching’ and ‘finding’ was carried out. Precisely, while L1 speakers tended to say: *The boy was {shouting/looking} down the hole*, L2 speakers tended to say things such as: *He was searching for his frog*. This is significant since the picture illustrating the scene is quite explicit about the voice emission activity and/or the direction where the boy was looking (i.e. down the hole).

I have interpreted these findings as compelling evidence that argue in favour of linguistic relativity theory (as understood in this thesis) and its effect on SLA. L1 and L2 TfS differ not only with respect to how similar semantic contents are expressed (e.g. *run from the jar* versus *run out of the jar*), but, more dramatically, they differ in how each group is ‘forced’ to pick out different aspects of the same reality for TfS purposes, as in the gopher scene. This conclusion is consistent with my claims that verbs of sound emission and vision in TA are not amenable to motionisation as is the norm in English. It is also consistent with the claims (e.g. Lakoff 1980; Talmy 1985, 2000; Taylor and

Evans 2003) that the linguistic conceptualisation of MOTION crosses conceptual domains: talking about physical motion has a spillover effect on how abstract/metaphorical motion is also expressed.

9.2. General Discussion

9.2.1. Theoretical implications

The preponderant as well as the productive use of motionisation suggests that the conceptual strategy of motionisation plays an important part in L1 English TfS behaviour. This encourages the thought that a single schema of the type $M_{-(ised)}[V]$ (i.e. either motion or non-motion verb + spatial particle) may be proposed as a ‘kernel’ (i.e. a base/prototype) from which other a complex schema of the type is formed, namely: $M_{-(ised)}[[V] + {}_1[G] + {}_2[G] + {}_3[G]]$.⁸⁷ Out of this extended schema, L1 speakers would encode and decode utterances as semantically different as *jumped out of the jar*, *climbed up a tree*, *echo down the hole*; more complex utterances, such as *fell **down off** the branch*; and even more complex ones, such as *went **tumbling off out** of his antlers* –all genuine L1 utterances. As Gruber states (1967), Figures in a motion event can be both intangible (e.g. *The boy’s gaze went down the hole*) and tangible (e.g. *The gopher went down the hole*). This observation has proved integral to TfS in L1 English. Yet, it has not been taken seriously in TfS research.

Gruber’s (1967) proposal has been echoed in recent cognitive semantic literature (Talmy 1996, 2000). For instance, Talmy (1996) has argued that the linguistic conceptualisation of motion includes both *factive* motion and *fictive* motion. *Factive motion* refers to physical motion. *Fictive motion* refers to “motion with no physical occurrence” (1996: 211). In this event, no obvious physical motion is taking place, but a reading of the construction allows for an interpretation of Motion:

[T]he intangible entity continues along its emanation path and terminates by impinging on some distal object. [...] Specifically, the intangible entity is what **moves fictively and is itself fictive**, and its fictive motion **does not depend on any factive motion** by some tangible entity nor on any localized observer. (Talmy 1996: 216; my emphasis)

⁸⁷ I use “nested” clause representation to explain the productive nature of the proposed motionisation schemas. This practice is usually exercised in generative approaches (e.g. Chomsky 1995). I do not intend this endeavour to be read as supporting the principles of Generative Grammar (e.g. their modular view of language). Note that the proposed nested structures include both syntactic (parts of speech) and semantic information (conceptual components like Manner and Path). This is different from Generative traditions which assume a separation between semantics and syntax.

Essentially, Talmy (1996) argues that neither the Figure nor the Path need be physical. Motional readings occur because spatial particles coerce such readings. The following examples taken from Talmy (1996) illustrate his point with reference to the verbs *look* and *face*:

- (160) a. I quickly looked down into the well (1996: 221).
b. The cliff wall faces toward/away from the island (1996: 218).

According to Talmy (1996: 220), in (134) the moving Figures evoke a “line of sight” concept. *Line of sight* is itself intangible and emerges “from the visual apparatus canonically located on the front of an animate or mechanical entity” (Talmy, 1996: 220). The trajectories described in (134) describe a metaphorical “*lateral* motion of the line of sight” (1996: 220). Furthermore, Talmy (1996: 220) points out that the motionisation of vision involves both sensory verbs like *look* and nonsensory ones like *turn* (e.g. *I slowly turned/looked / I slowly turned my camera toward the door*; Talmy 1996: 221). He explains that in constructions using verbs like *look* and *turn* “the object with the vision-equipped front – whether, my head with its eyes or the camera with its lens – swivels, thus causing the lateral motion of particular path that the line of sight follows” (Talmy 1996: 221).⁸⁸ Fictive motion interpretation occurs because “apparently what the preposition [...] refers to is the motion of the line of sight that emerges from” the figure (Talmy 1996: 221). In brief, Talmy’s (1996) position is in line with Gruber’s (1967) with regard to the fluidity of figures in motion events. The data reported in this study supports this theoretical perspective.

Talmy’s (1996) binary distinction between fictive and factive motion is useful for linguistic analysis because it makes it possible to appreciate the extent to which similar linguistic expressions are utilised by native speakers of English to meet TfS speaking demands. However, it is important not to confuse descriptive adequacy with the psychological reality of the ‘physical’ and the ‘abstract’ in TfS. Linguistically, ‘looking down the hole’ is not distinguished from ‘climbing up the tree’ and neither is ‘pushing the dog down the river’ from ‘smelling the frog out of the hole’. What is binary (i.e. fictive/factive) in semantic analysis is unitary in TfS.

If this line of analysis is accepted, then a real challenge facing L2 learners in general and Tunisian learners of English in particular is not so much how to describe physical motion using motionised constructions, but how to extend the same constructions in a

⁸⁸ E.g. *I slowly turned my camera/looked toward the door* (Talmy 1996: 221).

systematic way to describe abstract Motion as well. The evidence discussed in this study encourages the thought that it is the intermeshing of the fictive and factive levels of TfS that may be said to define the degree of thinking-for-English attainment.

To the extent that many of the L2 speakers in this study differed in their TfS behaviour from L1 English speakers, the conclusion that these learners might have reached a stage of *fossilisation* is tentative. This is especially relevant when one takes into consideration that (a) the L2 participants are “advanced” English speakers, and that (b) they are professionals (i.e. teachers/lecturers) for whom English is the main medium of instruction in their jobs.

Slobin (2002) points out that the description of L1 English narratives in this study should be seen in terms of “preferential” rather “absolute” TfS habits. In his words:

[E]ach language provides a set of preferred perspectives on events. Of course, one has a range of choices in any particular language; nevertheless, some choices seem more “natural” than others, depending on the language” (Slobin 2002: 7)

Yet this study points to an important caveat: in a second language context, appreciation of what may be ‘natural’ in a target language represents a fundamental challenge for L2 learners. Advanced L2 speakers of English take different perspectives on events from speakers of a typologically opposing language. Using Slobin’s terminology, L2 speakers in this data have not been using the L1’s “preferred perspectives on events”. Instead, their sense of “naturalness” may be said to have been L1-relativised.

These claims are important and have direct bearing on our general understanding of why learning a second language may not be achieved fully despite continuous exposure to the target language. Recently, resurgence of interest in issues of “truncated learning” (Han 2012) has been accompanied by discussions of what formal education can do in order to help learners overcome potential cross-linguistic challenges at advanced levels. According to Byrnes (2006), for instance, “exploring advancedness in the delimited setting of instruction [is] profitable precisely because it would force careful consideration of the contributions formal L2 education can and does make to the acquisition of advanced levels of language ability” (2006: 3-4). Similarly, according to Odlin (2010), research adopting cognitive principles – namely the principles that argue for a close relationship between language and thought – promotes better understanding of traditional SLA conundrums. In his view, the question of why learners stop short of

reaching native-like attainment despite constant exposure to the language is an important question that SLA research needs to address using the magnifying lens of cognitive linguistics and the linguistic relativity hypothesis:

[I]t seems reasonable to expect that further work in cognitive linguistics can contribute more not only to the study of **transfer** and **relativity** but also to helping promote **instruction** that can minimize whatever **entrenchment** in SLA arises from crosslinguistic differences in semantics and pragmatics and from differences in patterns of mapping from form to meaning. (Odlin 2010: 193-194; my emphasis)

Within this orientation, the questions of (a) why many of the Tunisian learners seem not to have acquired the preferred ways of describing motion event in English, and (b) how important it is for L2 learners “to tell it as native speakers do” are crucial to a discussion of the role of L1 training, fossilisation, and the notion of “advancedness” in the teaching of English to speakers of other languages. It is to these questions that I now turn.

9.2.2. Pedagogical Implications

Every time I have tried to explain the subject matter of my research to non-specialists, I have been asked: “Does it really matter whether an L2 speaker says *I went into house running* rather than *I ran into house*?”

Cifuentes-Férez and Gentner (2006) have raised the same question with respect to the typological contrast between Spanish and English. They have asked whether it is functionally important for L2 Spanish learners to master the preferential ways of forming target language expressions when, in fact, the same communicative content has been described:

Would it really matter if Spanish speakers write *subir* while English speakers write *crawl down* if they both have the same event in mind and are simply distributing it differently across the construction? (Cifuentes-Férez and Gentner 2006: 454)

Cifuentes-Férez and Gentner (2006) have not answered the question they raised. However, in a footnote they have suggested that a systematic choice between target-like norms of expression and deviant ones motivated by L1 TfS habits may have other consequences:

We [...] suggest that even in cases where speakers did encode the same meanings, the fact that their languages lead them to distribute the elements differently across the constructions is of interest, because **the choice of construction may have further ramifications**. (Cifuentes-Férez and Gentner 2006: 459; my emphasis)

Cifuentes-Férez and Gentner (2006) did not elaborate on what these ramifications may be. In my case, however, I hope that this study has managed to show that a systematic choice between *ran into house* versus *went into the house running* epitomises two different norms of TfS. The use of non-target-like constructions would also lead to the selection of different aspects of motion-related events than those normally selected by target language speakers. Put differently, the ability “to motionise” or “not to motionise” events when using English establishes a clear case of TfS relativity for TA speakers.

A more valid question, therefore, is not **whether** saying *ran into the house* versus *went into the house running* should matter, but **for whom** the use of “target-like” constructions rather than “L1-relativised” constructions should matter most. The answer to this question is closely related to how the notion of “advancedness” and its related notion of “ultimate attainment” are interpreted. For instance, recruiters of English language teachers, English teacher trainers, and linguists adopting a prescriptive approach to language analysis (e.g. Murphy 1983; Braine 1999, 2010) argue that “advancedness” should be judged against a “native speaker of English” model. In this context, Murphy (1983) states that phrasal verbs form such an integral part of colloquial English that an advanced speaker who does not master these constructions would be easily tagged as ‘foreign.’⁸⁹

Phrasal verbs add a great deal of force, colour, and flexibility of the English language and, if a learner’s vocabulary and use of English is not always to appear ‘foreign’, it is essential that he or she master a large number of these verbs. (Murphy 1983: 4)

Equally, according to Braine one main reason why non-native speaker (NNS) English teachers may be disadvantaged in the job market is because many of them are perceived to be lacking in language proficiency (Braine 2010: 8). Similarly, Moussou and Llurda (2008) argue that with exception of a fortunate elite – referred to as “near-

⁸⁹ Given the examples Murphy (1983) cites for phrasal verbs, an analogy between phrasal verbs and motionised constructions may be drawn. However, Murphy (1983) treats phrasal verbs as unproductive conventionalised expressions. This is different from how motionised constructions are defined in this study, namely: that they are instantiations of schematic construction.

natives” – the majority of NNS teachers need additional linguistic knowledge.⁹⁰ They claim that regular reference to issues of proficiency in the literature suggests that linguistic attainment is the most important drawback inhibiting NNS teachers from getting appropriate professional recognition:

We must deal with differences among NNS teachers created by different levels in target language proficiency. This is the only difference that has been regularly contemplated as part of the discussion of the role of NNSs in language teaching, and more often than not it has been mentioned as the main handicap by NNS teachers in the exercise of their profession, except maybe for the ‘fortunate ones’ who are sometimes labelled as the ‘near-natives’. (Moussou and Lurda 2008: 339)

Proponents of an opposing view (e.g. Cook 2005) argue that it is unrealistic to expect adult L2 learners to achieve native-like attainment in the target language for two main reasons. First, the critical period hypothesis means that adults are no longer predisposed to acquire target languages fully (Singleton 1995). Second, the role of English is changing around the globe (Kachru 1985). English is a lingua franca (Braine 2010). Third, English is now a native language in nations as geographically distant as England, New Zealand, USA, Australia, South Africa, and India (Kachru 1985). The multiple origins of ‘the native speaker of English’, therefore, together with the globalisation of English, makes it impossible to pin down a single end-state model of a “native speaker of English”.

Taking all these factors in mind, Cook (2005) argues that the “native-speaker concept” should be abandoned as a goal of language learning. Instead, he proposes that the notion of “advancedness” should be defined with reference to a particular model of “successful L2 user”. Shohamy (2006), also reports that the native speaker model is nowadays rejected by most theorists as the only goal of foreign language learning. She observes that ‘advancedness’ is a notion relative to context, time, and place (2006: 202-3) and depends for its definition on determining **what**, **why** and **when** the target language is going to be used (2006: 202-203).

Consequently, although the views just described seem to be in stark opposition at first, a closer look suggests that they are not. Both views keep the “native-speaker-of-English-model” alive, at least within the limited context of professionals for whom the learning of English is not incidental. Cook (2005) makes this concession with reference

⁹⁰ “Linguistic knowledge” is probably intended to cover all aspects of linguistic competence: pragmatic competence, grammatical competence, discourse competence.

to ‘spies’, for whom passing for a native speaker is important. Teacher trainers, educational linguists, and English language teacher recruiters make the case for non-native English teachers. Consequently, within the limited context of professionals, the notion of ‘advancedness’ becomes closely tied up with an end-state model of a native speaker of English.

Assuming that the Tunisian L2 speakers were motivated to achieve native-like attainment in English, it becomes interesting to consider whether instruction could curb mother-tongue influences inhibiting the successful of target TfS norms of motion-event discourse.

In his discussion of the relation between linguistic relativity and language pedagogy, Odlin (2010) describes two views on the role of instruction in foreign-language teaching. On the one hand, there is what may be described as the “pessimistic” view. Proponents of this position (e.g. Slobin 1993, Ellis 2008; both cited by Odlin 2010: 188) argue that instruction is of limited value since L1 training results in “insurmountable entrenchment” (Odlin 2010: 188). On the other hand, the “optimistic” position argues that instruction can help curb the influences of L1 especially if attention is paid to cross-linguistic differences. This view, Odlin claims, was endorsed by Whorf (1956) who “had a more positive outlook, especially with regard to what linguists could do to enhance language teaching” (Odlin 2010: 187-188).

Whorf’s views about the role of instruction in limiting L1 influence have recently been echoed in some SLA studies. For instance, according to Hasko, although learning target-like norms of motion-event description is “a cognitively taxing task even for the highly advanced L2 participants” (2010: 56), added focus on problematic patterns can only help learners:

The domain of motion talk [...] warrants particular pedagogical treatment and attention [...] learners need continued pedagogical interventions and practice with verbs of motion at advanced levels of proficiency. (Hasko 2010: 26)

The need for more focused instruction especially with respect to typological differences is further supported by discussions of why target-like attainment is not acquired in formal settings. For instance, according to Carroll and Lambert (2006), L1 influences “may prove to be the major hurdle with respect to ultimate attainment, especially when evidence of incompatibility with the target language is subtle in nature” (2006: 71). They argue that it is generally the case that educational linguists tend to

confuse the critical and the incidental (i.e. style or cultural preferences; Carroll and Lambert 2006: 71). They concluded that educational linguists can identify problem areas and “thereby rightfully making” them “an integral part of language instructional programs that could be made available to adult learners from the outset” (Carroll and Lambert 2006: 71).

The lack of successful learning has also been explained with reference to the binary notions: *positive evidence* and *negative evidence* (Larrañaga et al. 2011). Positive evidence occurs when learners find evidence that supports the kind of structures they are using. Negative evidence occurs when learners find evidence in the input data that suggests that the structures they are using are deviant to L1 norms. Basing their analysis on these two notions, Larrañaga et al. (2011) report on a study where “advanced” English learners of Spanish failed to pick up the Spanish way of talking about Manner because of “scarce positive evidence” in Spanish and “little or no negative evidence” (2011: 117). It seems that English-speaking learners of Spanish will not find any clues as to the relative saliency of Manner because Manner is so infrequent in Spanish:

Any learner acquiring a second language needs positive evidence in order to achieve a given degree of proficiency, but some structures cannot be acquired without negative evidence, that is information about the ungrammaticality of particular utterances. (Larrañaga et al. 2011: 119)

Furthermore, according to Larrañaga et al. (2011) the fact that motion verbs are not treated as an integral grammatical component in language classes, little time or no time is usually devoted to its explicit instruction (2011: 135). In their view, there seems to be a hidden ideological discourse whereby teachers tend to overlook mistakes they classify as associated with “style” rather than “core” grammatical issues. They claim that teachers tend “to focus on the well-known problems of Spanish grammar and ignore minor errors that any native speaker of Spanish would classify as “sounds funny” (2011: 135).

Of course, what “sounds funny” for Larrañaga et al. is closely related to what Murphy (1983) in the above quote describes as “appearing foreign”, and what second-language researchers in general identify as **transfer** of L1 habits into L2 (Göskun et al. 2011), and what educational linguists identify as **fossilisation** (Han 2012). Fundamentally, all these labels implying a need for the same solution, namely: a systematic analysis of learners’ L1 and L2 within a linguistic-relativity research

paradigm. Once differences are identified, teachers can then embark on raising their learners' awareness (Neimeier 2004, Byrnes 2006).

However, whether consciousness-raising can prove effective in the face of L1 training remains controversial. On the one hand, there is von Humboldt (cited in Odlin 2010: 17) who seems to have put little faith in the ability of L2 learners to adopt new world views. On the other hand, there is Whorf (1956), who claims that L2 learners can adapt their original world views if linguists provide them with the necessary conceptual tools. As Odlin (2005) has pointed out, until the relativity of human language and conceptualisation is seriously entertained, researched, and implemented in instructed settings, whether improved instruction can truly help learners overcome L1 training will remain speculative:

If von Humboldt's surmise was correct, the cognitive framework laid out with L1 is to some extent unalterable, yet, if Whorf was correct, consciousness raising may eliminate binding power. Whichever view eventually proves to be more accurate, SLA researchers would not be exaggerating to say that any theory of linguistic relativity will fall short unless it is compatible with the evidence of conceptual transfer. (Odlin 2005: 17)

9.3. Concluding Thoughts, Caveats, and Directions for Future Research

The data reported in this thesis shows specific challenges that speakers of Tunisian Arabic face when adapting their thinking-for-Tunisian to thinking-for-English. It is hoped that educational linguists in Tunisia will appreciate that motion-event description is not to be dismissed as mere aspects of "rhetorical styles" or "cultural preferences". The conceptualisation of motion is a deeply-rooted conceptual process that evolves in conformity with solid grammatical and semantic training of native languages. Once a level of cognitive entrenchment in L1 is reached, restructuring one's original thought patterns when learning an L2 may prove too difficult to change. A notable exception – of course – is the claim that this thesis advances, namely: that better language-learning takes place when challenges facing advanced language learners are identified. These can then be presented to Tunisians right at the outset of their thinking-for-English learning journey.

Put differently, if language and conceptualisation are intimately intertwined in the minds of language speakers, as has been documented in the thinking-for-speaking behaviour of the participants in this study, then, acquiring native speaker's TfS can be vastly improved by incorporating findings from studies like the one carried out here.

This can only mean that for a cognitive domain like MOTION, acquiring the thinking-for-speaking habits of a target-language speaker should be dealt with at the grassroots. Precisely, rather than supplying learners with linguistic formulas, teacher trainers need to provide them with the relevant conceptual fabrics to help them restructure their original conceptualisation. As Neimeier (2004) in the following quote points out, many researchers now argue that the Whorfian views about the interrelationship between language, culture, and reality are relevant for the language classroom, advanced learners and teacher trainees:

[A] certain commitment to “Whorfianism” would not only prove helpful for the foreign language learners, but also in the development of new foreign language curricula for teacher trainees, or for on-the-job training for teachers, as well as for the development of new textbooks. (Niemeier 2004: 100)

In brief, educational linguists, teacher trainers, and policy makers must take it as a given that ‘what comes **naturally** to native speakers must go **explicitly** to non-native speakers’. How might explicit instruction be carried out? At what stage of language learning? And, for whom, will need to await the findings of future research. As Langacker (2006) has pointed out, it may be the case that explicit instruction about the conceptual basis of “linguistic structure, linguistic meaning, and the conceptualizations that they embody and reflect [...] would seem more relevant for advanced instruction” (2006: 37). Alternatively, it may be enough that teachers direct learner’s attention to the differences between TA motion talk and English motion talk right from the outset of language learning. Until such empirical studies are carried out, educational linguist should not take for granted that frequency of occurrence of certain constructions would automatically lead to their successful acquisition. Motionisation is abundant in English. Yet, the L2 data does not suggest that the motionisation construction has been internalised – at least, as far as language production is concerned.

Although this thesis has tried to add to existing knowledge base in grammatical typology, discourse typology, and thinking for speaking research, several caveats need spelling out so that future researchers take them into account when investigating L1 influences onto L2 learning.

A first caveat is that the number of participants is only 13 in each group. While one might wonder if this is too few to warrant general conclusions about relativity and language learning, it is quite common within TfS research to design a study based on a dozen participants or so (e.g. Berman and Slobin 1994; Cadierno 2004, 2010). In fact,

Stam (2010) has put forward a convincing argument for L1 influence based on a case study of a single participant. Consequently, although most TfS studies include a small number of participants, it might be statistically more insightful if future researchers were to include larger numbers of participants than what has traditionally been the norm.

Another caveat to this study is that I have offered participants a choice to either record themselves while under my supervision or not. This was done because I wanted to ensure that my participants were comfortable taking part in the experiment. As the data have showed, no direct consequences to this variable were noted. However, future studies might try to implement a more controlled data-collection method – if they feel their participants are psychologically motivated to undergo strict experimental conditions.

In addition, the L1-Tunisian, L1-English, and L2-English participants have not been strictly matched in terms of their gender, educational, and intellectual profiles. For instance, while many L1-TA speakers had limited educational backgrounds (recall only four had reached A-levels), L1-English speakers were mostly primary school teachers, teaching assistants, and university students. The educational level of these participants may be a variable to consider in future studies, although – as far as I am aware – current TfS literature has not reported that.

A similar point may be raised with respect to L2 participants. Although this group was characterised as advanced speakers of English, analysis of the academic profile and person specification of each participant suggest that they could easily be ranked along a cline of advancedness. PhD holders who have lived abroad and graduated from American and British universities may be ranked as “very advanced” and MA holders as “less advanced”. This proposal is partially supported by the data. PhD holders who have graduated from UK or US universities have generally used more motionisation than their peers. Of particular note is subject [L] who has reported that English is the main medium of communication within her household given that her husband is not Tunisian and that her five-year-old daughter was born and lived in the UK for three years. Another participant who has used more motionised constructions than his peers reported that he has had an outstanding academic profile in English all through his educational years, so much so that he was awarded a Fulbright scholarship to support his postgraduate studies in the USA. Therefore, length of exposure and the types of qualifications in English seem to be important variables in L2 learning. While this study

has not fully considered these variables, future studies investigating issues of transfer in advanced language learners should perhaps take them into consideration when recruiting their subjects. Prior tests for “advancedness”, information about educational background, and the amount of exposure to colloquial spoken English are legitimate variables to consider.

Another point that should be mentioned is that the categorisation of motion verbs is not always clear-cut in this study. For instance, in categorising the verb *fall* as a Manner verb, I have followed Zlatev and Yangklang (2004). However, both Slobin (1996b) and Cadierno (2010) have categorised the verb *fall* as a Path verb, presumably because its primary meaning involves a downward direction of motion (Cadierno 2010: 28). This line of reasoning is supported by the impossibility of *#fall up the stairs*. However, under the view adopted in this study, *fall* conflates at least three semantic components [MOTION +PATH+ MANNER]. *Fall* is just one example of categorisation difficulties. It is possible that other borderline cases may be identified. This is to be expected given the “promiscuous” nature of English motion verbs (Levin 1993) and the inherent fuzziness and flexibility of human categorisation in general (e.g. Whorf 1956, Barsalou 1999).

Future researchers must also inform themselves about the “gloss trap” (Stringer 2010: 103). This refers to the erroneous assumption that a linguistic term in one language is an exact match in a different language. According to Stringer (2010: 103) “glosses are an imperfect tool” and that researchers must first scrutinise the semantic and syntactic adequacy of their glosses before making generalisations based on erroneous glosses:

Comparative syntactic analysis of predicates is argued to be feasible through their decomposition into grammatically relevant semantic components. ... the gloss trap may be avoided in studying the L2 acquisition of argument structure by means of *a priori* contrastive analyses at the level of lexical semantics. (Stringer 2010: 104)

The current study has not carried out an *a priori* analysis of the TA lexicon. For instance, the preposition *fī* has been glossed in this work as a match to the English *in* or *into*. However, the semantic range of the TA preposition *fī* covers is different from that of *in/into*. For instance, the expression of [CONTACT via MOTION] is expressed by means of *on/onto* in English (e.g. *He fell onto the ground*). In TA, however, it is the preposition *fī* that is used (e.g. *ta:h fī=l=qa3* ‘He fell *in* the ground’). Similarly, while the verb *climb* has been glossed as *t-l-3 climb* these two verbs behave differently in English and TA with respect to the types of prepositions they combine with. While the

English *climb* collocates freely with either *up* or *down*, the Tunisian verb *t-l-3* ‘climb’ combines only with the preposition describing upward directed motion *l=fu:q*.

In fact, one may extend Stringer’s notion of ‘gloss trap’ to explain matters fossilisation. For instance, could L2 learners have fallen victims of their own gloss trap when not learning the use of satellite into in boundary-crossing situations. Could it be that the L2 learners have misjudged an L2 term (e.g. *into*) to be an exact match of a term in their L1 (e.g. *fi*) simply because they were sufficiently similar in one context? Consequently, while in this study I have not explored the full range of lexical differences between English and TA verbs and prepositions, future researchers should pay due attention to the distributional patterns characterising the use of verbs and spatial particles in first languages before studying L2s.

Perhaps the most important caveat relates to Slobin (2009). This is a little-cited paper about the relationship of physical motion and visual motion which I only found ten days prior to submitting this work for examination. Nevertheless, Slobin’s (2009) treatment of the verb *look* in TfS is interesting and deserves to be mentioned.

Of particular note is Slobin’s (2009) claim that the application of constructional schemas of physical motion onto those of fictive motion is universal (2009: 219):

Although much more work is needed before definitive conclusions can be drawn, this preliminary exploration demonstrates a possible **universality** of conceptions of fictive motion, shaped by linguistic resources and thinking for speaking that vary with language typology. (Slobin 2009: 219)

The claim that fictive motion is equally expressed in verb-framed languages, has direct bearing on the notion of motionisation proposed in this work. This work has not provided a comprehensive analysis of whether TA has a comparable motionised schema to the one depicted in Figure 8.3. Clearly, even if a motionised schema is to be found in TA, it must necessarily be different from the one described for English in this work. Importantly, Slobin (2009) reports that he has presented his ideas to linguists with native V-languages like French and Spanish. Their responses suggested that Slobin (2009) could have been motivated by “thinking for theorising” (2009: 212), and that Slobin is assuming the perspective of an English speaker and not a French/Spanish speaker. For instance, when asked how he would conceive of the gopher scene (recall picture 10, section 8.4), a Spanish cognitive linguist had the following to say:

There is no salient container schema in *mirar en agujero* [= look in the hole]. The phrase is presenting the location where the events occurs. (Enrique Plancar 2002; cited in Slobin 2009: 212)

Similarly, a French linguist has commented:

For me, *regarder dans le trou* [= look in the hole] does not express a movement (and therefore does not express path): It is static. The prepositional complement governed by the perception verb expresses most of the time the “locus,” the region on which the activity of perception is exerted. Surely, *regarder dans le trou* for me supposes a movement of the eyes toward the hole, but the path of gaze is present only as a background and unspecified component. The path can be inferred, but it is not profiled by the linguist expression (Stéphane Robert 2002; cited in Slobin 2009: 212-213)

Equally, one can extend these comments to Tunisian Arabic and argue that *yogzor fi l=hofra* ‘look in the hole’ does not depict an activity of motion. Perhaps an expression like *yogzor fi wist il=hofra* ‘look **in middle** of the hole’ is closer to the depiction of motion of the line of sight if contextual clues are present (i.e. the relative location of the figure from whom the line of sight emanates). This is different from the English *look into the hole* where a boundary-crossing interpretation is not dependent on contextual clues.

In short, Slobin may be right in pointing out the universality of the use of similar linguistic frames for both fictive and factive motion. However, as the Spanish and the French linguists have commented, it is doubtful that verb-framed language speakers actually conceive of visual path as physical paths. At least as far as one can tell from the limited data reported in this research, there is a striking contrast between the way TA speakers motionise events in their L1 and their L2 as compared to native speakers of English.

Finally, it is my contention that despite the above listed caveats, the collected data and the way they have been analysed should encourage other researchers to approach motion-event studies from a perspective that is as comprehensive as that which is encompassed by the notion of motionisation – a perspective which collapses the traditional boundary of the concrete and the abstract in human linguistic conceptualisation. This thesis has focused on TA. However, if motionisation is to guide future investigations of TfS cross-linguistically, then even languages as extensively researched as Spanish or French could be re-examined. For instance, one may ask whether Spanish or French speakers motionise events in the same way as English

speakers do. Enrique Plancar (2002; cited in Slobin 2009: 212) suggests this is not the case for the Spanish. Stéphane Robert (cited in Slobin 2009: 212) suggests that it is not the case for the French. But, the intuitions of Slobin's (2009) colleagues are no more nor less than intuitions and future researchers might want to test them out more systematically.

In closing, the construct motionisation has been explored in this thesis to explain TfS variations between first languages and their influences on second language learning. It also has been proposed as a possible avenue for TfS researchers to follow. Nevertheless, motionisation concerns only on the conceptual domain of motion and while motionisation is informative, it does not claim to provide all the answers concerning issues of language and conceptualisation. For that converging lines of evidence from studies of conceptual domains other than Space and Motion are needed.

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Appendices

Appendix 1: *Frog, Where are you?* (Mayer 1969)





8



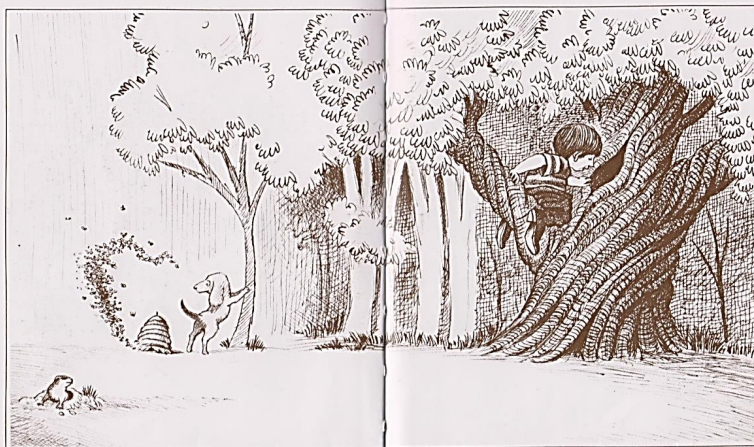
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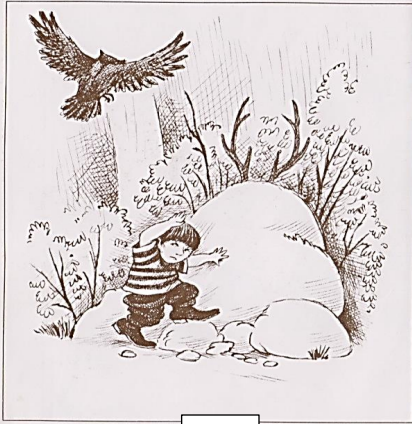
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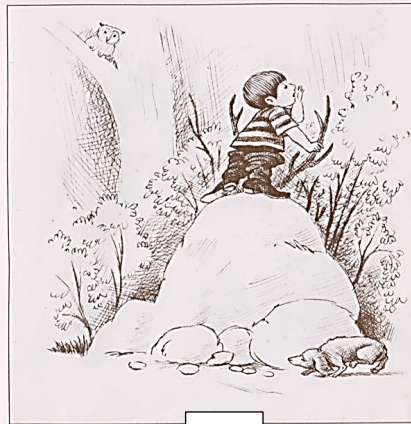
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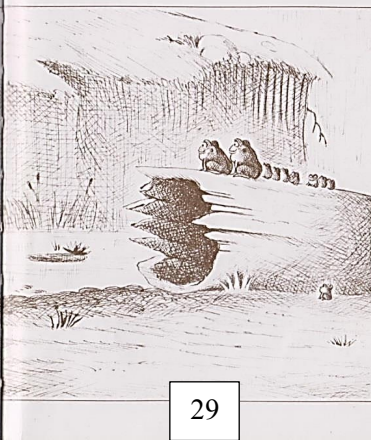
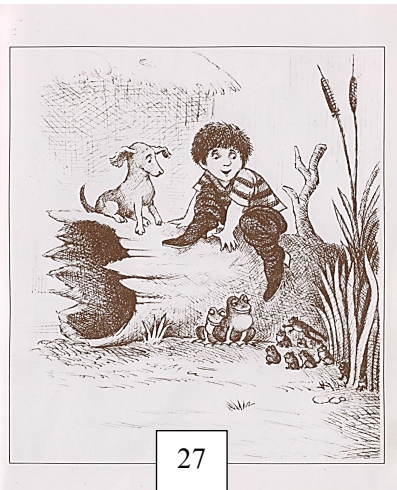
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Appendix 2: English Motion Verbs (Adapted from Slobin: 1996b: 198)

Manner + Motion	Sound emission verbs	Action verbs	Push, pull and carry verbs	Deictic path verbs
buck				depart
	buzz		carry	come
bump	splash	chase	dump	escape
climb	splat	knock	drop	follow
creep		hide	push	head
crawl			throw	land
fall			take	leave
float			tip	get
fly			make.fall	Go
hop				move
jump				
limp				
plummet				
pop				
rush				
run				
slip				
sneak				
swoop				
tumble				
walk				
wander				

Appendix 3: Spanish Motion Verbs (Adapted from Slobin: 1996b: 198)

Manner verbs	Sound emission	Action verbs	Push, pull And carry verbs	Deictic Path verbs
		<i>perseguir</i> 'chase'		<i>venir</i> 'come'
<i>saltar</i> 'jump'			<i>arrojar</i> 'throw'	<i>ir(se)</i> 'go'
<i>nadar</i> 'swim'			<i>meter-se</i> 'insert oneself'	<i>bajar</i> 'descend'
<i>volar(se)</i> 'fly away'			<i>poner-se</i> 'put oneself'	<i>acercarse</i> 'approach'
<i>caer(se)</i> 'fall'			<i>dar-un-empujón</i> 'push'	<i>sacar-se</i> 'remove oneself, exit'
<i>caer(se)</i> 'fall'			<i>hacer caer</i> 'make fall'	<i>salir</i> 'exit'
<i>huir</i> 'flee'			<i>llevar(se)</i> 'carry'	<i>entrar</i> 'enter'
			<i>llevar(se)</i> 'carry'	<i>escapar</i> 'escape'
			<i>tirar</i> 'throw'	<i>llegar</i> 'arrive'
				<i>regresar</i> 'return'
				<i>volver(se)</i> 'return'
				<i>traspasar</i> 'go over'
				<i>subir(se)</i> 'ascend'
				<i>marchar(se)</i> 'go'
				<i>alcanzar</i> 'reach'

**Appendix 4: Form of Consent in
Tunisian Arabic**

موافقة قبول المشاركة

نعمل في بحث على اللغة التونسية ونتمنى أنك تعاوني بالمشاركة متاعك. باش نعطيك "قصة" متاع << ولد صغير و الجرائنة متاع >>.

القصة تتمثل في : تصاور و إنت تتفرج عليهم بالوحدة و تحكي لي لحكاية.

المشاركة هذه باش تدوم 15 دقيقة , نحب نعلمك أنو هذه التجربة اللغوية ماهيش امتحان, مافيهاش حاجة صحيحة و حاجة غالطة.

راني باش نسجل المشاركة متاعك و باش نستعمل التسجيل هذا في البحث متاعي.

خصوصياتك كيف ما : اسمك و عمرك ... ما يعنوش أكثر من أنك مواطن تونسي تتكلم اللغة التونسية و باش نستعملها كان لغاية علمية بحتة. و نعلمك أنك تنجم تقص على المشاركة هذه في أي وقت تحس روحك ماكش مرتاح.

و إذا كان عندك أي سؤال نوا و إلا حتى بعد المشاركة مرحبا بيبك في أي وقت.

وبارك الله فيك و يعطيك الصحة.

عماد الوحيشي تحت مراقبة الدكتورة «لين ميرفي» Dr Lynne Murphy .

إني الممضي أسفله : الاسم اللقب

السن

نوافق باش نشارك في البحث هذا.

سيدي بوزيد في الإمضاء

زرمدين في الإمضاء

Appendix 5: Arabic Consonantal System (Versteegh 1997: 20)

	voiceless	voiced	nasal	velarised	lateral	trill
labial	f	b	m			
interdental	t̪	d̪		ɖ		
dental	s	z	n	ʂ	l	
alveolar	t	d		ʈ	ɖ	r
pre-palatal	ʃ	ǧ				
post-palatal	k	q				
velar	ħ	ǧ				
pharyngeal	ħ	ʕ				
laryngeal	ʔ	h				

Appendix 6: Form of Consent in English

Consent Form

This form is presented to participants for consent prior to recordings:

RELEASE FORM for CD #s: _ _ _ _

Linguistic and non-linguistic categorisation of motion events Project

University of Sussex, Imed Louhichi, under the supervision of Dr ML Murphy

School of English

Brighton BN1 9QN

The Project

The 'Linguistic and non-linguistic categorisation of motion events' Project is studying how people talk about events in Tunisian Arabic and English. We ask speakers of these languages to look at a picture book and describe the story in their own words. The voice recording is an essential part of the project; CDs are saved in an archive and used only for research. We, the Project members, promise:

- We won't publish any real names or addresses in any Project reports, or give them out to the public
- We'll protect, to the best of our ability, the confidentiality of people we've recorded
- The materials and tape recordings
- The materials and tape recordings made as part of the research will be used only for educational/scholarly purposes (not for profit!)
- No copies of these CDs will be made. Anonymous transcripts of the story telling may be used in academic publications and presentations.

Interviewer: _____ Supervisor: _____

Date: ____ / ____ / ____ Date: ____ / ____ / ____

The Person Recorded on CD Agrees:

- It's OK with me if the Project publishes excerpts from the recordings made with me for research purposes- as long as they change names, addresses & identifying information
- I understand that the researchers aren't doing this for money, and I'm not asking to be paid for it either
- The recordings, and any transcript, are the result of a voluntary interview with me. The CD is the primary record, anyone reading a transcript should realise it comes from my spoken word, which was recorded in full confidence.
- If I have any other restrictions on the use of these tapes I'll make them clear now, so we can agree on them; if we can't, I have the right to see the CDs destroyed

Name: _____

Age: _____

Occupation: Teacher / TA _____

Level: _____

How long have you been Teaching for? _____

Is English your first language? Yes / No

Do you live in the: US / UK

How long for? _____

Date:

Signature:

Appendix 7: A Qualitative and Quantitative Analysis of Motionised Constructions in L1 & L2

Subj- ect	Total motion verbs used per partici- pant	Types of motionised verbs per participant	Total number of motionised constructions	%	Total con- structions	%	Rate of increase
[A-E- F]	22	creep out/up; go out/off/into/back; wake up; look out; fall out/away/off; look out/over; fly around; bark up; knock out; come along; hooked up; carry off; go tumbling down; splash into; sit up;	14	63.63 %	22	100 %	36.37%
[A-T- M]	20	get out/into; run away; wake up; look around/out; fall out/down; break up; go out; throw away/into; jump into;	9	45%	13	65%	20%
[B-E- F]	9	creep out; Call out/down; slip out; fall backward/over/into; jump out; pick up;	6	75%	9	100%	25%
[B-T- M]	26	jump into/off; wake up; look all over; stick sth into/through; get up/out; go into/out; call out; come back/out; scare out; climb up; put sth through; have sth back; let sth down; drop into; fell into; join up; send back; go back	18	69.23%	23	88.46 %	19.23%
[C-E- F]	41	sneak out; wake up; get into; put out; fall out/into; jump up/out; walk out/down; look into/down; be down; echo down; bring down/back; buzz round; pop out; move along; climb upon; peer over; put down; shake off; (go) tumble down; sit up; turn round; go back/off; get into; pull off;	25	60.97%	29	70.73 %	9.76%
[C-T- M]	13	leap out; run away; enter sth into; come out; fall down; throw into;	6	46.15%	6	46.15	0%
[D-E- F]	20	climb out/up/onto; wake up; go over/into; jump out; look up/into/over; run out/into; come out; fall onto/in; shout into;	11	55%	19	95%	40%

		thrust up/onto; drop into;					
[D-T-M]	14	get out; wake up; call out; fall down; take into; go around; lean against; throw into;	8	57.14%	8	57.14 %	0%
[E-E-F]	28	get up; look through/up/out/over; go out; wander into; shout down; come up; bark up; climbs up; be down/up; fall onto/down; lean down; carry off/through; shake off; splash into; trot around;	15	53.57%	21	75%	21.43%
[E-T-F]	9	run away; go out; wake up; stick into; scatter all over; come out; lean against; get over	8	88.88%	8	88.88 %	0%
[F-E-M]	20	climb out; wake up; lean out; falls off; go out; look down/up/over; shout down; climbs up; calls down; comes out; bark up; knock off; run away; stampede towards; sit up; head back towards	16	80%	18	90%	10%
[F-T-F]	5	shout out; call out; run away; walk away; come back;	5	100%	5	100%	0%
[G-E-F]	13	creep out; call out; go off; get into; come out; go on/off; look over; fall over/into; peep over;	9	69.23%	11	84.61 %	15.38%
[G-T-F]	2	go out; take sth out;	2	100%	2	100%	0%
[H-E-M]	20	leap out; run off/into; wake up; set off; fall out/down; set off/into; look up/down/around; climb up; chase off; fly onto; shout out; jump out; toss over; splash into; sit up; take away	16	80%	21	105%	25%
[H-T-M]	12	run away; wake up; fall out; look into; climb up; fall down; carry over; fall into; get over	9	75%	9	75%	0%
[I-E-M]	16	put on; be off/back/into; smash up; call into; look down; fall down; look up; fly by; take somebody off; scramble up /over; pick up; go off	11	68.75%	15	93.75 %	25%
[I-T-M]	9	wake up; shout out; put into; smell out; fall down; run away; take away	7	77.77%	7	77.77 %	0%

[J-E-F]	18	jump out; wake up; look out; go further/down/off towards; call down/off; shoo away; climb onto/over; carry off; go tumbling down; fall into; set off back	11	61.11%	16	88.88 %	27.77%
[J-T-M]	13	creep out; run away; wake up; fall down; set free; play round; pop out; spread all around; bump into; project ahead; take back	11	84.61%	11	84.61 %	0%
[K-E-F]	13	climb out; tip out; wake up; call out; shout down; pop out; run away; take someone over; fall over; set off back	10	76.92%	10	76.92 %	0%
[K-T-F]	10	Get out/up/down; find out; fall down; go out; ejected into; go back	6	60%	8	80%	20%
[L-E-F]	24	look into/out; climb out/up/over/down; wake up; fall out/into; go into/off/past; fly around; smell out; pop out; knock down; come out; chase away; hold onto; carry away; tumble over; sit up	15	62.50%	22	91.66 %	29.16%
[L-T-F]	23	take off/out; jump out; look into/onto; call out; fall off; go out; head towards; fly over/out; pop out; climb onto; come out; chase away; lift up; send down; fall into; be into;	16	69.56%	19	82.60 %	13.04%
[M-E-M]	13	creep out; wake up; look out; fall out; go off towards; call out; come out; run away/after; climb up; end up; throw off; wade back through	13	100%	14	107.69 %	7.69%
[M-T-M]	21	sit down; get out; go away; wake up; get into; call out; go out; look into; jump out/towards; fall out; turn out; jump out; run away; throw down; wave back.	15	71.42%	16	76.19 %	4.77%

Note: From left to right- column 1= subject ID for both L1 and L2 speakers; column 2= how many motion verbs did they use; Column 4= how many of these verbs have been used together with a path satellite/spatial particle; column 4= how many *motionised* constructions have **minimally** been formed; column 5= percentage as compared to column 2; column 6= how many **different** constructions have these base verbs (column 4) generate; column 7= percentage;

Appendix 8: Histogram Reflecting Data in Figure 8.2

Table	Frequency	Percentages
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	L1 English	L2 English	L1 English	L2 English
0% - 5%	1	9	8%	69%
5% - 10%	2	0	15%	0%
10% - 15%	1	1	8%	8%
15% - 20%	1	3	8%	23%
20% - 25%	3	0	23%	0%
25% - 30%	2	0	15%	0%
30% - 35%	1	0	8%	0%
35% - 40%	1	0	8%	0%
40% - 45%	0	0	0%	0%
45% - 50%	1	0	8%	0%

Appendix 9: Path Segmentation in *The cliff scene*

	ID →	O 44 F	M 47 M	B 40 M	E 51 M	G 43 M		K 57 M	F 37 M	J 27 F	I 39 M	L 35 F	H 17 F	A 44 M	D 60 F	Total	Total of subjects Per Elabora ted segmen t
Schematic path segments	Detailed path segments ↓																
Onset of motion: Change of location 1	Deer lift boy up/get stuck between antlers	1	1	1	1	1		1	1	1	1	1	1	1	1	13	13
	Deer starts to run	1	1	1	1	1		1	1	1	1	1	1	1	1	13	13
	Deer runs, carrying boy	1	1	1	1	0*		1	1	1	1	1	1	1	1	12	12
	Deer reach cliff	1	1	1	1	1		0	1	0	1	0	0	1	0	8	8
Climax of motion: Negative change of location	Deer stops at cliff	0	1	1	1	0		Elicited	1	0	1	0	0	1	0	7	7
Anti-climax of motion: Cause of change of location 1	Deer throws boy (off antlers/down)	1	1	1	1*	1		1	1	1	1	1	1	1	1	13	13
	Boy and dog fall	1	1	1	1	1		1	1	1	1	1	1	1	1	13	13
End of Motion: Change of location 2	Boy and dog land in water	1	1	1	1	1		1	1	1	1	1	1	1	1	13	13
Results	Number of schematic segments(Out of 4)	3	4	4	4	3		4	4	3	4	3	4	4	3		8
	Number of elaborated path segments per subject(Out of 8)	7	8	8	7	6		7	8	6	8	6	6	8	6		